PB90-254335

Superfund Record of Decision (EPA Region 2)
Roebling Steel, NJ. (First Remedial Action), March 1990

(U.S.) Environmental Protection Agency, Washington, DC

29 Mar 90

U.S. Department of Commerce
National Technical Information Service
NTIS

PB90-254335

United States
Environmental Protection
Agency

Office of
Emergency and
Remedial Response

EPA/ROD/R02-90/100
March 1990

EPA

Superfund Record of Decision:

Roebling Steel, NJ

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First Remedial Action

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Washington, D.C. 20460

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800/000

14.

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16. Abstract (Limit: 200 words)

The 200-acre Roebling Steel site is a former steel wire and cable manufacturing facility in the village of Roebling, Florence Township, Burlington County, New Jersey. The site abuts the Delaware River to the north and Crafts Creek to the east, and lies adjacent to Roebling Park, a public playground. From 1906 to 1982, the facility was operated primarily to produce steel products, but in recent years, portions of the site have been used for various other industrial operations that have resulted in the onsite generation, storage, or burial of raw materials and wastes. Two removal actions were performed as a result of these industrial operations. In 1985, the State removed picric acid and other explosive chemicals from one onsite laboratory and detonated the chemicals offsite. From 1987 to 1988, EPA performed a second removal action, which included the offsite disposal of lab pack containers and drums; recycling/reuse of metallic mercury, gas cylinders, sulfuric acid, and phosphoric acid; and onsite containment of baghouse dust and exposed asbestos. This interim operable unit will address those areas where contaminant sources pose a sufficiently imminent hazard to require expedited remediation. These areas include the remaining drums and exterior tanks, transformers containing PCB-contaminated oils, a baghouse dust pile, chemical piles, tires, and the soil under the water tower in Roebling Park. (See Attached Sheet)

17. Document Analysis a. Descriptors
Record of Decision - Roebling Steel, NJ
First Remedial Action
Contaminated Media: soil, debris
Key Contaminants: organics (acids, PCBs), metals (arsenic, chromium, lead), oil

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report) None	21. No. of Pages 94
	20. Security Class (This Page) None	22. Price

(See ANSI-Z39.18) *See Instructions on Reverse* OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

Abstract (Continued)

Additional operable units will address the remaining sources of contamination and those areas where contaminant migration has occurred. The primary contaminants of concern affecting the soil and debris are organics including acids and PCBs; metals including lead, chromium, and arsenic; and oils.

The selected interim remedial action for this site includes offsite incineration and disposal at a RCRA-permitted facility of the contents of 757 drums; offsite incineration and disposal at a RCRA-permitted facility of 67,000 gallons of PCB-contaminated oil found in 183 transformers; dismantling and decontaminating the transformers and disposing of the transformer housings at a RCRA-permitted facility; offsite disposal at a RCRA-permitted facility of 150,000 gallons of tanked material; offsite stabilization and disposal at a RCRA-permitted facility of 530 cubic yards of baghouse dust; offsite treatment and disposal at a RCRA-regulated landfill of 40 cubic yards of metal-contaminated materials from 79 chemical piles; offsite disposal of 10,000 tires; and excavation of 120 cubic yards of surface soil from Roebling Park followed by offsite stabilization and disposal at a RCRA-permitted facility. The estimated total cost for this remedial action is $5,003,400. No O&M costs are associated with this operable unit.

DECLARATION FOR THE RECORD OF DECISION

ROEBLING STEEL COMPANY

SITE NAME AND LOCATION

Roebling Steel Company, Florence Township, Burlington County, New Jersey

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Roebling Steel Company site, chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan. This decision document explains the factual and legal basis for selecting the remedy for this site.

The State of New Jersey has been consulted and concurs with the selected remedy. The information supporting this remedial action decision is contained in the administrative record for this site.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision, may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The interim action described in this document is the first of a series of planned remedial action operable units for the site. There have been two removal actions conducted to stabilize the most hazardous areas of the site. The first operable unit, which is the subject of this Record of Decision will address on-site areas that pose a sufficiently imminent hazard to require expedited remediation, and that were not addressed in the previous removal actions. These areas include the remaining drums and exterior tanks, transformers, a baghouse dust pile, chemical piles and tires. The first operable unit will also address soil under a water tower in the Roebling Park adjacent to the Roebling Steel site.

ROD FACT SHEET

SITE

Name: Roebling Steel Superfund Site
Location: Florence Township, Burlington County, New Jersey
EPA Jurisdiction: EPA Region II
HRS Score: S_M = 41.02
NPL Rank: 57

ROD

EPA Signature: March 29, 1990
Remedy: Off-Site Treatment and Disposal of Waste at Facility
Total Project Cost: $5,003,400
O & M Cost: N/A

Lead

Agency: Federal Remedial Lead
Primary Contact: Tamara Rossi (212) 264-4593
State Contact: Frank Richardson (609) 292-4070

Waste

Type:	Organics and inorganics
Medium:	Source removal (drums, transformers, tanks, baghouse dust, chemical piles, tires)
Origin:	Most of the waste originated from the steel manufacturing process, however some waste was left behind by miscellaneous companies unrelated to the steel facility.

Estimated Quantity:

- 67,000 gallons of PCB contaminated oil in transformers;
- 194,000 gallons of liquid and sludge waste in drums and tanks;
- 570 cubic yards of solid material contaminated with heavy metals;

DECISION SUMMARY FOR THE RECORD OF DECISION

ROEBLING STEEL COMPANY SITE
FLORENCE TOWNSHIP, BURLINGTON COUNTY
NEW JERSEY

Interim Action - Operable Unit I

Operable units for long-term remediation of the site will be determined as appropriate. A comprehensive remedial investigation will determine the nature and extent of contamination over the entire site. Areas of concern include soils, surface water, groundwater, sediments, air quality, and other remaining contamination sources.

The major components of the selected remedy for this first operable unit include the following:

- DRUMS/DRUM CONTENTS: Overpacking and Off-site Disposal
- TRANSFORMERS/TRANSFORMER CONTENTS: Shipment of Transformers En Masse
- TANK CONTENTS: Bulking of Contents and Off-site Disposal
- BAGHOUSE DUST: Off-site Treatment and Disposal
- CHEMICAL PILES: Off-site Treatment and Disposal
- TIRES: Off-site Disposal
- WATER TOWER SOIL: Off-site Treatment and Disposal

STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. This remedy utilizes permanent solutions and alternative treatment (or resource recovery) technologies, to the maximum extent practicable, given the limited scope of the action. It also satisfies the statutory preference for toxicity, mobility, and/or volume as a principle element. The waste will be transported and properly disposed of at a RCRA approved treatment and disposal facility. Although hazardous substances will remain on site above health based levels after implementation of this interim action, the five-year review will not apply because subsequent actions are planned to fully address the remaining principle threats posed by this site.

Constantine Sidamon-Eristoff
Regional Administrator

3/29/90
Date

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DECISION SUMMARY FOR THE RECORD OF DECISION

ROEBLING STEEL COMPANY

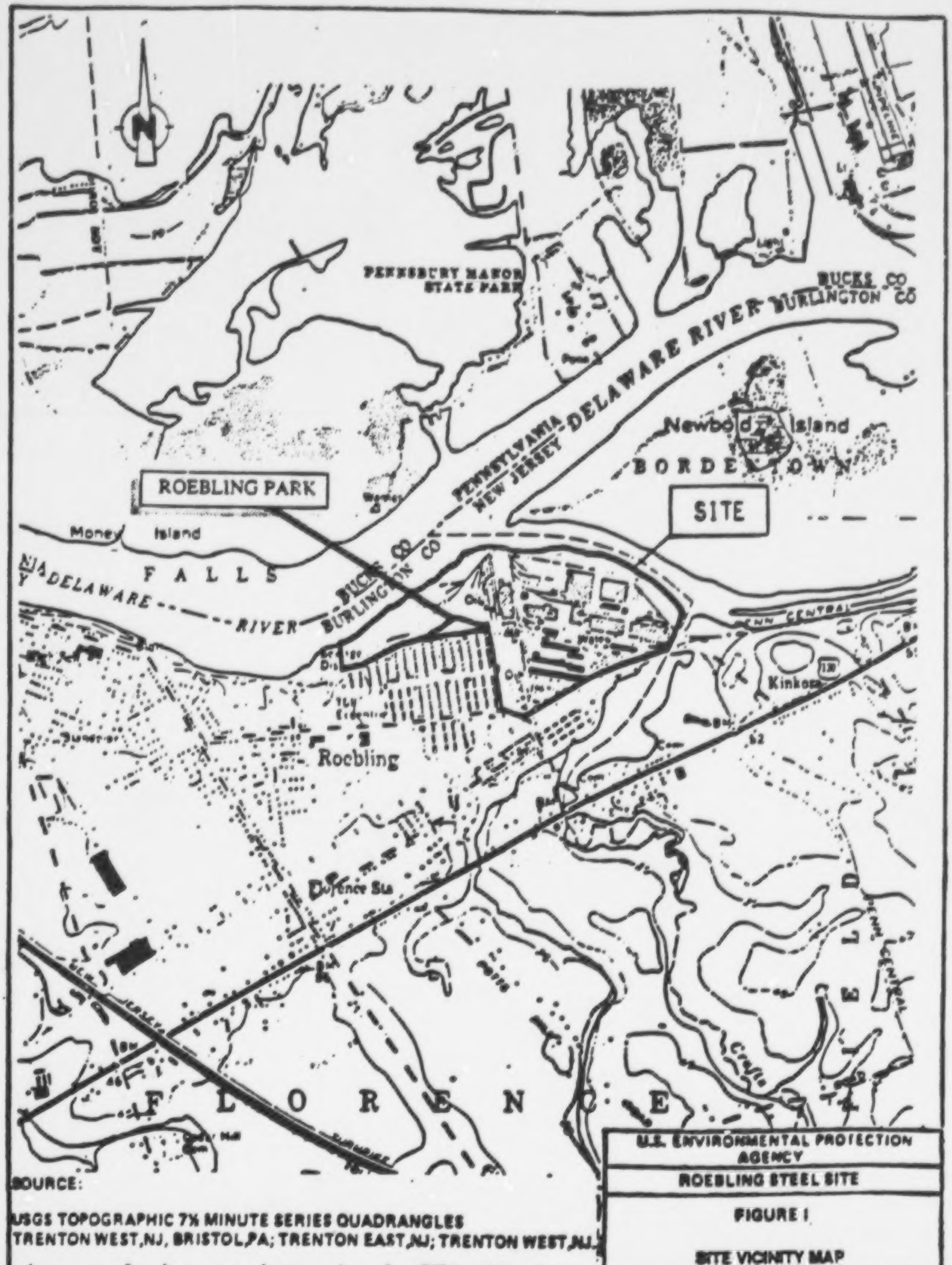
SITE LOCATION AND DESCRIPTION

The Roebling Steel site is a 200-acre, inactive facility that fabricated steel wire and cables. The site is located in Florence Township, Burlington County, New Jersey, in the vicinity of 40° 07' 25" north latitude and 74° 46' 30" west longitude.

The site is bordered by Second Avenue on the west and Hornberger Avenue on the south in the Village of Roebling. It is bounded on the north and east by the Delaware River and Crafts Creek, respectively. The Roebling Park, a public playground adjacent to the site, is located on Riverside Avenue. U.S. Route 130 is approximately one-half mile south of the site. The site and Roebling Park are shown on Figure 1.

The site was used from 1906 until 1982 primarily for the production of steel products. In recent years, parts of the site have been used for various industrial operations. There are approximately 55 buildings on site connected by a series of paved and unpaved access roads occupying most of the site. Slag residue from steel production was used to fill in a large portion of the bordering Delaware River shoreline. Numerous potential sources of contamination exist at the site, including 757 drums containing liquids and solids, 106 abandoned tanks, 183 transformers containing PCB-contaminated oils, 52 railroad cars containing fly-ash, dry sludge and debris, pits and sumps, process buildings containing chemical treatment baths, two sludge lagoons, friable asbestos insulation on pipes, a baghouse dust pile, chemical piles, tire piles, and a landfill.

Residential properties are located to the west and southwest of the site at a zoning density of approximately eight dwellings per acre. The closest residences to the site are approximately 100 feet away from the property boundaries, 250 feet from the slag pile and 1,200 feet from the sludge lagoons and wastewater treatment plant tanks. The Northwest Playground consists of a large open area which includes swings, basketball and tennis courts, and a large elevated water tower. The playground elevation is about 10 to 15 feet above the Roebling Steel site. A Penn Central (Conrail) railroad track runs to the southeast of the site. Areas zoned for special manufacturing activities are found on either side of this track. The major residential area of Florence Township is one- to two-miles west of the site. The population of Florence Township is 9,084 (1980 census).


N
PENNSBURY MANOR STATE PARK
BUCKS CO
BURLINGTON CO
DELAWARE RIVER
PENNSYLVANIA
NEW JERSEY
Newbold Island
BORDENTOWN
ROEBLING PARK
SITE
Money Island
FALLS
DELAWARE RIVER
BUCKS CO
BURLINGTON CO
PENN CENTRAL
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Roebling
Dufence Sta
FLORENCE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

SOURCE:

USGS TOPOGRAPHIC 7½ MINUTE SERIES QUADRANGLES
TRENTON WEST,NJ, BRISTOL,PA; TRENTON EAST,NJ; TRENTON WEST,NJ.

U.S. ENVIRONMENTAL PROTECTION AGENCY

ROEBLING STEEL SITE

FIGURE I

SITE VICINITY MAP
ROEBLING PARK AND STEEL PLANT

ERASCO SERVICES INCORPORATED

The Delaware River is used for contact (i.e., swimming) and non-contact (i.e., boating) recreational activities in the vicinity of the site and is also used for fishing. The Delaware River is used for water supply by the city of Burlington, approximately six miles downstream from the site, and the city of Philadelphia, farther downstream. Crafts Creek, a tributary to the Delaware River, with headwaters in north-central Burlington County, comprises the eastern boundary of the site and forms a 40-acre pond south of the site. Crafts Creek discharges to the Delaware River on the eastern boundary of the site. Crafts Creek is used by nearby residents, particularly by children, for fishing and playing.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

Historical Site Use

A steel mill was established at the site in 1906 by the J. A. Roebling's Sons Company for the fabrication of steel wire and cables from scrap steel. The site remained owned by the Roebling family until 1952 when it was sold to the Colorado Fuel and Iron Company (CF&I). CF&I operated the facility until May 1979.

In May 1979, the John A. Roebling Steel Company (JARSCO) was formed with financial assistance provided by the U.S. Department of Commerce, Economic Development Administration (EDA), the New Jersey Economic Development Authority, and private funds. JARSCO ceased operations in June 1981 and leased portions of the site to other businesses. The Roebling Wire Company (RWC) began operating on a leased portion of the site in January 1982. RWC closed its operations between June 30, 1983 and July 28, 1983, filed a Chapter XI petition for bankruptcy, and continued to occupy the site premises until October 1985. RWC informed the New Jersey Department of Environmental Protection (NJDEP) that it had ceased operations at the Roebling Steel site and did not intend to resume at that location.

In addition to the companies noted above, the site supported a variety of other industrial uses, including a polymer-reclamation facility, a warehouse facility, a facility for repairing and refurbishing refrigerated trailers and shipping containers, and an equipment storage facility for a construction company. EDA remains the mortgagee in possession of the site and previously maintained a security force at the site to protect its remaining financial interests. A list of the companies that have occupied the site is provided in Table 1.

TABLE 1

HISTORICAL SITE USE
STEEL AND WIRE RELATED COMPANIES

COMPANY	**ACTIVITIES**	**SUSPECTED WASTES**
John A. Roebling Sons Company (1906-1952)	Production of wire, wire cable and cable for suspension bridges from scrap & pig iron	Waste oil, heavy metals
John A. Roebling Sons (a Division of Colorado Fuel and Iron Co. (CF&I), 1952-1974)	Steel & wire products high carbon-wire Wastewater treatment plant	Wastewater discharged into Delaware River containing copper, zinc and cadmium wastes, mineral acids, acid solutions, sludges, waste oil, spent solvents, baghouse dust
Roebling Steel & Wire Corporation (formed as a subsidiary of Alpert Bros Leasing Company, 1974-1979, bankruptcy in 1975)	Steel billets & wire Construction of wastewater treatment plant	Sludges, waste oil, process water, heavy metals, spent solvents
Roebling Steel Corporation (JARSCO bought the premises from Roebling Steel & Wire Corporation, 1979-1982)	Carbon and alloy steel billets (only portions of the plant and equipment needed for their products; Wire Mill Facilities idle); Wastewater treatment plant	Waste oil, furnace slag, baghouse dust, heavy metal sludges, wastewater discharge
Roebling Wire Company (RWC) bought Wire Mill equipment and leased the Wire Mill premises from Jarsco, Bldgs 8, 10, 13 and 14, Jan 1982-Oct 1985)	Wire production; Wastewater treatment	Waste oil, heavy metals sludges, VOAs, wastewater discharges, acid solutions

TABLE 1 (cont'd)

HISTORICAL SITE USE
UNRELATED STEEL AND WIRE COMPANIES

M.A. Industries, Inc.

M.A. Industries operated a polymer-reclaiming business on the site from June 1, 1978 until May 31, 1983 under a lease agreement with the Roebling Steel and Wire Corporation. M.A. Industries occupied Building 114, which had formerly been used for wire storage. M.A. Industries reportedly recovered plastic cases from lead storage batteries.

Stauffer Chemical Company

Stauffer Chemical Company held a lease for portions of the site from 1978 to April 1, 1982. The Stauffer Chemical Company occupied Building 77, which had formerly been a part of the wire mill, and a portion of Building 88, which had been the copper mill. According to Stauffer Chemical Company, this space was used for storage of vinyl products.

Joe Tiederman Truck Specialist

Joe Tiederman Truck Specialist held a five-year lease for property on the site beginning in April 1980. This company occupied a portion of Building 80, which formerly was the scrap building.

Project Packaging, Inc.

Project Packaging, Inc. held a one-year lease for property on the site beginning on April 1, 1981 (continuing thereafter on a month-to-month oral lease).

Orville Howard Trucking Company

Orville Howard Trucking Company held a lease for property on the site beginning in June 1980. This company leased a portion of Building 80, which had been the scrap building.

TABLE 1 (cont'd)

HISTORICAL SITE USE
UNRELATED STEEL AND WIRE COMPANIES

Henkels and McCoy, Inc.

Henkels and McCoy, Inc., a construction company, held a one-year lease beginning in October 1982. The company leased 45,000 square feet of the parking lot for the storage of construction equipment, as well as on site office space.

Greentree, Inc.

Greentree, Inc. was alleged to be subleasing property (Building 97) from RWC during 1984 (in violation of New Jersey bankruptcy laws then affecting RWC), and had been observed housing several hundred containers on site.

Johns-Manville

Johns-Manville occupied office space on site as well as Building 77. Johns-Manville used the building to store insulation materials.

Midway Container Services, Inc.

Midway Container Services, Inc. leased Building 77, formerly occupied by the Stauffer Chemical Corporation. Midway Container Services was engaged in welding/container reparation.

Vanco, Inc.

Vanco, Inc., leased space on the site for trucking and mechanical repair operations.

Remedial Actions to Date

The improper use, or lack, of environmental control facilities at the site over the last twenty-five years resulted in several regulatory agencies issuing notices of noncompliance to site owners. On May 19, 1964, the New Jersey Department of Health (NJDOH) recommended that CF&I install a wastewater treatment plant. A NJDOH status report described operations conducted at the site by CF&I, which was then discharging 15-million gallons per day (MGD) into the Delaware River. The effluent was acidic, and contained high levels of iron and other metals, suspended solids, and oil. On May 31, 1968, NJDOH ordered CF&I to cease polluting the Delaware River and required the construction of a wastewater treatment plant. In 1972, the wastewater treatment plant was completed and placed into operation.

On November 15, 1974, NJDEP met with facility owners to discuss various aspects of the facility operation, including the absence of liners under the sludge lagoons, groundwater contamination, landfill operations, oil unloading, and transmission and storage operations. In October 1979, NJDEP issued JARSCO a permit to construct and operate an industrial wastewater treatment plant (the CF&I wastewater treatment plant with improvements). The permit required the installation of monitoring wells and the performance of bioassay monitoring. Also, the Delaware River Basin Commission (DRBC) granted approval to JARSCO to withdraw surface water from the Delaware River, and to discharge wastewater to the Delaware River in compliance with DRBC quality standards.

On June 13, 1979, the JARSCO site was inspected by NJDEP and the Burlington County Health Department. Six hundred 55-gallon drums containing waste oil were discovered on site. NJDEP requested that these drums be removed. In November 1979, NJDEP issued a notification of violation to JARSCO, as a result of an inspection of the site on June 13, 1979. JARSCO was later cited for committing a health and safety violation as it attempted to remove the drums from the site without completing the required waste manifests.

On January 29, 1980, NJDEP named JARSCO as one of 38 hazardous waste sites most urgently needing cleanup in the State of New Jersey. The following potential pollution sources were identified: 100 drums, PCB transformers, a tire pile, abandoned oil and chemical storage tanks, and bag house dust storage piles.

In 1981, JARSCO was cited for noncompliance with conditions in the permit for operation of its wastewater treatment plant (installation of monitoring wells, bioassay monitoring, flow measurement and discharge monitoring). NJDEP issued a Notice of

Prosecution to JARSCO seeking the removal of oil drums, and other hazardous wastes stored on site. A Resource Conservation and Recovery Act (RCRA) inspection of the facility was performed, and JARSCO was cited for storage of baghouse dust without a permit.NJDEP inspected and sampled the sludge lagoons, and found the sludge to contain volatile organics and heavy metals.

On July 22, 1981, JARSCO removed 20,000 gallons of waste oil and 60 cubic yards of contaminated soil from the site.

On February 1, 1982, NJDEP issued JARSCO a deadline for the submittal of a compliance plan, which would address violation of monitoring requirements for the wastewater treatment plant. Since the JARSCO plant had closed in November 1981, it was not required to meet the deadline.

In June 1982, NJDEP required the installation of two groundwater monitoring wells downgradient from the lagoons, and one well upgradient from the lagoons. EPA issued a Complaint and Compliance Order that directed JARSCO to stop storing hazardous wastes without a permit, to remove spilled dust and contaminated soil, and to address contaminant migration.

In December 1982, an acid cloud at the RWC was reported. No violations could be detected when the facility was inspected by NJDEP.

In February 1983, JARSCO officially abandoned the site without sufficiently addressing the permit noncompliances first cited in 1981.

In 1983, NJDEP inspected the site and found that permits and certificates were missing from some of the RWC equipment. A Compliance Evaluation Inspection performed by NJDEP found unacceptable conditions at the RWC site.

The site was added to the National Priorities List (NPL) of Superfund sites in December 1982. In 1983, EPA performed a site inspection which included soil sampling. The existing data were assembled in a Remedial Action Master Plan. In May 1985, EPA began a Remedial Investigation and Feasibility Study (RI/FS) to determine the nature of the contamination at the site and to evaluate remedial alternatives to address this contamination.

In 1985, Notice Letters pursuant to Section 107(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) were sent to eight potentially responsible parties (PRPs), inviting participation in the remedial action. No PRP accepted responsibility or liability for hazardous substances at the Roebling Steel site. On October 29, 1987, Notice Letters pursuant to Section 107 (a) of CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA), were sent to nineteen PRPs, as identified by the Environmental Protection Agency (EPA), inviting participation in the removal action, discussed in the next section. As of December 1, 1987, six replies had been received by EPA, but no PRP has accepted responsibility or liability for hazardous substances at the Roebling Steel site. Seven letters have been returned to sender or indicate moved, not forwardable.

Two removal actions have been performed at the site. In December 1985, NJDEP removed picric acid and other explosive chemicals from one of the on site laboratories and detonated them at the Earle Naval Weapons Station. The EPA performed a removal action, between October 1987 and November 1988.

EPA REMOVAL ACTION (OCT 1987 - NOV 1988)

1. Approximately 300 lab pack containers of chemicals were collected, removed, and disposed of off site. The chemicals found included acids, bases, inorganic salts, alcohols, and other halogenated and non-halogenated organic compounds.
2. 3,203 55-gallon drums (2,004 full; 1,199 empty) were sampled and disposed of at RCRA permitted facilities.
3. 120 cubic yards of emptied drums were crushed and removed to an EPA approved hazardous waste landfill in Indiana.
4. Three pounds of metallic mercury were collected, repackaged and sent to a recycling facility in Pennsylvania for distillation and reuse.
5. Thirty-seven tons of baghouse dust near the southern border of the site have been contained and secured with tarps and barriers.
6. One drum of hazardous waste containing cyanide was shipped to an approved treatment facility.
7. Forty compressed gas cylinders containing flammable gases, oxidizers, corrosives, poisons, and other gases have been returned to manufacturers or other facilities for reuse and recycling. Several cylinders were detonated on site.

8. Approximately 3,000 gallons of sulfuric acid and 2,150 gallons of phosphoric acid were sampled, analyzed, and removed from two large, above-ground tanks and sent to a facility for reuse.

9. 239,000 pounds of hazardous solids in drums were bulk packed into roll-off containers and shipped to a RCRA permitted facility.

10. Exposed asbestos in potential personnel-entry zones was wrapped and contained.

Current Conditions

The site is presently inactive and under the control of EPA, which maintains 24-hour security at the site. The site is fenced on the entire north and south sides. The western border, which is formed by the Delaware River, and the eastern border, which is formed by Crafts Creek, are not fenced. EPA has posted signs indicating that the site is hazardous and entry to the property is restricted.

Currently, Ebasco Services Incorporated, contracted by EPA, is performing remedial activities for the on-going RI/FS. This study is being conducted concurrently with the interim action and will address remaining site contamination. Most of the sampling activities for the RI/FS have been completed.

HIGHLIGHTS OF COMMUNITY PARTICIPATION

The Focused Feasibility Study (FFS) and the Proposed Plan for the Roebling Steel site were released to the public for comment on January 8, 1990. These two documents are available to the public in both the administrative record at EPA and two information repositories maintained at Florence Township Public Library and Florence Township Municipal Building. The notice of availability for these two documents was published in the Burlington County Times on January 7 and 8, 1990 and the Bordentown Register News on January 11, 1990. A Superfund Update was mailed to approximately two hundred individuals on the mailing list. A public comment period was held from January 8, 1990 to February 6, 1990. In addition, a public meeting was held on January 18, 1990. At this meeting, representatives from EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) answered questions about problems at the site and the remedial alternatives under consideration. A response to the comments received during the comment period is included in the Responsiveness Summary, which is part of this Record of Decision (ROD).

This decision document presents the selected interim remedial action for the Roebling Steel site, in Roebling, New Jersey, chosen in accordance with CERCLA, as amended by SARA and, to the extent practicable, the National Contingency Plan. The decision for this site is based on the administrative record.

SCOPE AND ROLE OF INTERIM ACTION

As with many Superfund sites, the problems at the Roebling Steel site are complex. As a result, EPA has organized the remedial work into phases or operable units. This ROD addresses the first planned remedial action at the site. This action will address those hazards at the site that require immediate attention, and is intended to stabilize the site until an overall, permanent remedy is selected. The interim action will continue the stabilization effort that began with the previous removal action. The interim action is consistent with Section 104 of CERCLA, as amended, in that it will provide an orderly transition into, and will contribute toward, the efficient performance of future remedial actions. Remedial alternatives for a permanent cleanup of the entire site are being evaluated in the ongoing remedial investigation and feasibility study.

- Removal Actions included two cleanups, the first was performed in 1985 by the NJDEP, and the second was performed in 1987 - 1988 by the EPA. The objective of these actions was to stabilize the most hazardous areas of the site. Explosive chemicals were removed from the site in the 1985 removal. In the second removal action, lab pack containers and drums of corrosive and toxic materials, acid tanks and compressed gas cylinders were removed.
- Operable Unit 01 is the subject of this decision document. It will address those on-site areas that pose a sufficiently imminent hazard to require expedited remediation but were too complex or required too expensive a response to address during the removal actions. These areas include the remaining drums and exterior tanks, transformers, a baghouse dust pile, chemical piles, and tires. It will also address the soil under the water tower in the Roebling Park, adjacent the Roebling Steel site.

- Additional Units will determine the nature and extent of contamination over the entire site. A RI/FS is currently being performed that will address the remaining areas of contamination at the site. The RI/FS will examine soils, surface water, groundwater, sediments, air, lagoons and other remaining contamination sources. The remaining areas will be examined for further operable unit segregation so as to address the worst areas of the site first.

SUMMARY OF SITE CHARACTERISTICS

The Roebling Steel site was used during the last 75 years mostly for the production of steel wire and cable. Recently, portions of the site were used for various industrial operations that generated, stored, or buried raw materials and wastes in many different locations on site. As a result, there are a variety of potential sources of chemical contamination, numerous potential mechanisms for chemical migration, and many potential exposure pathways for both human and ecological receptors.

Numerous potential contamination sources of hazardous wastes are identified at the site. Below is a list of potential sources segmented into areas to be addressed under this ROD and those to be addressed in the ongoing RI/FS.

Interim Action (OU-01)

- 757 drums remain scattered throughout the site, inside and outside of 37 buildings. A previous removal action addressed 3,203 55-gallon drums, of which 2,004 were full and 1,199 were empty. These drums are expected to contain a variety of organic and inorganic liquids and solids.
- 183 transformers that contain oil contaminated with polychlorinated biphenyls (PCBs) have been identified on site. The results from the PCB analysis showed high concentrations of Arochlor 1242 and 1260.
- There are approximately nine exterior tanks ranging in size from 100 to 8,000 gallons, many of which are in poor condition, with rusted walls, leaky valves and open roofs. They contain oil, acids, sludges.
- Approximately 530 cubic yards of baghouse dust is being stored in a roofed area adjacent to building 88. Samples of the baghouse dust showed high concentrations of most metal

contaminants. Cadmium, chromium, arsenic, lead, and zinc are all present at elevated levels. Cadmium, chromium and lead levels in the TCLP (leachate) metals analysis exceed the land disposal restrictions (LDR) treatment standards for these contaminants.

- Chemical piles consisting of powders and unknown material have been discovered. Chemical pile samples showed high concentrations of most metal constituents. Cadmium, chromium and lead levels in the TCLP (leachate) metals analysis exceed the LDR treatment standards for these contaminants.
- Approximately 10,000 discarded tires are located around Building 18 and 70; these present a potential fire hazard.
- Approximately 120 cubic yards of surface soil under the water tower in the Roebling Park is contaminated with elevated levels of lead.

Additional Operable Units

- There are approximately 90 tanks located throughout the buildings. Many of them are in poor condition, with rusted walls, leaky valves and open roofs. Among the tanks are six wastewater treatment flocculation and settling tanks containing very acidic water and sludges.
- Two inactive wastewater treatment plant lagoons, which were found to be contaminated with lead, cadmium, copper, zinc, and volatile compounds, are located on the site.
- Furnace slag disposal areas cover approximately 20 acres and could be a source of heavy metal contamination, as well as sulfur, phosphorous, and metal oxides.
- A landfill in which rubble and debris were disposed is located on the site.
- 52 inactive railroad cars containing furnace slag, ashes, and sludge have been found.
- There are 55 buildings on the site containing physical and environmental hazards, including water filled basements, hidden pits, and sumps containing contaminated liquids and sludges.
- Loose friable asbestos insulation have been found throughout the buildings, and on overhanging pipes.

In addition to the numerous contamination sources described above, contaminants have migrated into the soil, water, sediment and air. Limited sampling of some potentially contaminated environmental media was conducted and summarized below.

Surface soil samples were obtained from locations within a grid overlay encompassing the site. Composite samples were obtained from each 200 square foot grid and analyzed for EP toxicity constituents and petroleum hydrocarbons. In addition, subsurface soil samples were taken from boreholes and monitoring wells. Both the surface and subsurface soils are highly contaminated with metal pollutants. Numerous organic compounds are present at elevated levels in soils.

Groundwater samples were collected from 17 monitoring wells. Analyses of these samples show high concentrations of metal contaminants.

Analysis of 14 surface water samples collected from the Delaware River and Crafts Creek did not show concentrations of pollutants exceeding Water Quality Criteria (WQC) except near storm water discharge points. However, sediment samples from the same locations detected high levels of metal contaminants. High levels of semi-volatile organic compounds were also present. In addition, low concentrations of volatile organics were detected in a few samples. Sediment samples did not contain detectable amounts of pesticides or PCBs.

Contaminated soil, sediment, groundwater, surface water and air are still under study and will be addressed in a future ROD.

SUMMARY OF SITE RISKS

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the interim action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

Human Health Risks

An evaluation of risks associated with each area of concern for the interim action was performed to determine the impact on public health and the environment under various exposure scenarios and different contaminant pathways. This evaluation is presented in Section 3.4 of the FFS report. Vandalism and trespassing are two major concerns at the site which seriously aggravate the chemical and physical hazards present, and have required the use of expensive security measures.

The potential for significant exposure through inhalation and dermal contact is considered high. Both the drums and tanks contain a variety of hazardous (toxic, corrosive, and reactive) constituents. The transformers contain oil contaminated with high levels of PCBs. There are two major concerns associated with the drums, transformers and tanks: trespassers may be exposed to hazardous chemicals if they approach or tamper with any of these containers; and container vessels are deteriorated and may leak at any time, releasing hazardous substances, either through volatilization of the chemical or a spill.

The baghouse dust and chemical piles were found to contain high levels of several heavy metals (lead, chromium and cadmium), many of which are toxic and/or carcinogenic. Baghouse dust from steel manufacturing electric arc furnaces is a restricted RCRA listed waste (K061--emission control dust/sludge from the primary production of steel in electric furnaces). The existing cover on the baghouse dust pile provides temporary protection of public health and the environment. However, this cover may become degraded by the weather and cease to provide effective containment. Migration pathways exist for the transport of uncontained baghouse dust and chemical pile contents into the air via resuspension through wind erosion or mechanical disturbances. The hazardous constituents measured in the baghouse dust may leach into the environment and may also pose a health risk to trespassers through direct exposure.

Approximately ten thousand tires are located in piles both inside and outside of buildings, primarily around the south eastern portion of the site. On several occasions, fires have occurred in the tire piles. The tire fires constitute a chemical threat to public health and the environment as well as a physical hazard. Burning tires release hazardous constituents, such as polynuclear aromatic hydrocarbons, into the air, and produce a toxic tar-like sludge.

The most significant exposure scenario is the incidental ingestion of contaminated soil by young children. Surface soil in Roebling Park was analyzed; an area of the park under the water tower adjacent to a playground frequented by young children was found to be contaminated with unacceptably high concentrations of lead. Low levels of PCBs have also been detected in this area of the park. The incidental ingestion or inhalation (through migration into the air by wind erosion or mechanical disturbances) presents a public health risk to children, particularly of preschool age.

The potential health and toxicological effects of some substances, such as heavy metals and PCBs, are well known. Table 2 provides a summary of the health effects from known compounds at the Roebling Steel site.

TABLE 3

POTENTIAL HEALTH AND TOXICOLOGICAL EFFECTS

HEALTH EFFECT	COMPOUND					
	Chromium	Copper	Lead	Acids/Corrosive	PCBs	Asbestos
Eye, Skin Respiratory and Mucous Membrane Irritation	X	X		X	X	X
Liver Damage	X		X		X	
Kidney Damage			X			
Lung Damage			X	X		X
Central Nervous System Damage			X			
Acutely Toxic via Inhalation, Ingestion, or Skin Absorption	X		X		X	
Carcinogenic	X		X		X	X
Reproduction Toxicity	X		X		X	
Mutagenic			X			

Environmental Risks

As previously noted, the Delaware River to the north and Crafts Creek to the east form the boundaries of the Roebling Steel site. The Delaware River serves as a drinking water source for the cities of Philadelphia, Pennsylvania and Burlington, New Jersey. In addition, the Delaware River and Crafts Creek are being used as a recreational facility for residents on both sides of the river. Human health could be impacted most directly via water quality deterioration and contamination of recreational fish species. Although there are risks to human health from contamination sources, the potential also exists for migration of the contaminants into the air, soil, surface water and groundwater. The principle environmental threat present at the Roebling Steel site is the continued degradation of the containers holding hazardous waste. If contaminants were to enter the Delaware River, they would pose potential threats to public health and the environment.

Contaminants may enter Delaware River and Crafts Creek via several pathways. The toxic chemicals may leak from drums, transformers and tanks located throughout the site, and potentially leach into the river and groundwater systems. Contaminated soils from leaking containers may be transported by surface runoff. Contaminated groundwater may also discharge into the river. Fugitive dust from contaminated soils, baghouse waste or chemical piles may be blown off site by the wind and enter the river system.

The most significant effects on endangered species could occur during site remediation activities. An endangered aquatic species known to inhabit this section of the river is the adult shortnose sturgeon (Acipenser brevirostrum). Endangered raptors found in the area are the bald eagle (Halialetus leucocephalus) and the American peregrine falcon (Falco peregrinus anatum). No significant negative effects on endangered species are anticipated from site remediation activities, due to the nature of this action. Only off site treatment and disposal are being considered for the contaminants addressed in the interim action. In future remediation phases, the potential impacts of site remediation activities will be evaluated further.

DESCRIPTION OF ALTERNATIVES

The alternatives analyzed for the interim action are presented below. These alternatives are numbered to correspond with those in the Focused Feasibility Study report. These alternatives were developed by screening a range of alternatives for their applicability to site-specific conditions, and evaluated for effectiveness, implementability, and cost. The alternatives that were not eliminated from consideration during screening were subjected to a more detailed evaluation. In addition to the alternatives described below (Table 3), a No Action alternative was considered for the on-site areas and water tower soil.

NO ACTION

The No Action alternative provides a baseline for comparing the alternatives that provide a greater degree of response. Under this alternative, no effort would be made to change or maintain the current status of the drums, transformers, tanks, baghouse dust pile, chemical piles and tires. The container vessels (drums, transformers, tanks) would continue to degrade and potentially leak hazardous substances. The temporarily contained and uncontained contaminated materials (baghouse dust and chemical piles, respectively) would continue to migrate. The tires would remain in place and another fire might occur. Under the No Action alternative, no remedial action would be implemented to eliminate the health risk posed by the contaminated soil under the water tower. No remedial technology would be utilized to reduce the toxicity, mobility or volume of the waste. The No Action alternative is retained as a baseline alternative for each contamination source.

ON-SITE AREAS OF CONCERN:

DRUMS/DRUM CONTENTS (DR)

DR-1 Drum Bulking and Off-site Disposal

Estimated Cost:	$ 869,000
Implementation Period:	within one year

Under this alternative, action would be taken to remove the drums from the site and to properly dispose of the wastes. First, any deteriorated drums would be overpacked. All drums containing wastes would then be sampled. The samples would be tested to determine compatibility of the wastes. Drums containing compatible waste would be staged (grouped) until final waste bulking. Prior to final disposal, the contents of each staged drum would be consolidated (bulked) into a bulking chamber with the contents of other drums of compatible material. One waste sample would be taken from each bulked category; these samples

Table 3

SUMMARY OF REMEDIAL ALTERNATIVES

CONTAMINATION SOURCE	ALTERNATIVE	
ON-SITE AREAS OF CONCERN		
DRUMS/DRUM CONTENTS	DR-1	Bulking Contents and Off-site Disposal/ Crushing Drums and Off-site Disposal
	DR-2	Overpacking of Drums and Off-site Disposal
TRANSFORMERS/ TRANSFORMER CONTENTS	TR-1	Bulking Contents and Off-site Incineration/ Dismantling Transformers and Off-site Disposal
	TR-2	Transformer Shipment En Masse
TANK CONTENTS	TK-1	Bulking and Off-site Disposal
BAGHOUSE DUST	BH-1	Off-site Treatment and Disposal
CHEMICAL PILES	CP-1	Off-site Treatment and Disposal
TIRE PILE	TP-1	Off-site Disposal
OFF-SITE AREA OF CONCERN		
WATER TOWER SOIL	WT-3	Excavation and Off-site Treatment and Disposal

would undergo rigorous analytical testing to determine the appropriate method of final disposal for each category. The bulked waste would be loaded into a tanker truck and hauled off site to a RCRA approved treatment facility or to a hazardous waste disposal facility. After bulking, empty drums would be crushed for disposal.

DR-2 Overpacking of Drums and Off-site Disposal

Estimated Cost:	$ 1,475,500
Implementation Period:	within one year

This alternative involves overpacking each drum of waste at the site in an approved container to prevent further leakage or spillage of the drum contents. This alternative would include sampling of each drum along with a complete disposal parameter analysis. Once the drums are overpacked, they would be hauled off site to a RCRA approved treatment facility or to a hazardous waste disposal facility.

TRANSFORMERS/TRANSFORMER CONTENTS (TR)

TR-1 Bulking and Incineration of PCB-Contaminated Liquids/Dismantling and Disposal of Transformers

Estimated Cost:	$ 1,840,000
Implementation Period:	within one year

This alternative involves the consolidation of the contents of individual transformers into a tanker to be shipped off site for incineration. The contents would be tested before consolidation to ensure that the materials are treated appropriately based on the concentration of PCBs present. The transformer housings would be decontaminated before off site disposal.

TR-2 Shipment of Transformers En Masse

Estimated Cost:	$ 1,541,000
Implementation Period:	within one year

This alternative involves shipping the transformers and their contents to a facility that would properly dispose of the PCB-contaminated oil, dismantle and clean the transformers and dispose of the housings.

TANK CONTENTS (TK)

TK-1 Bulking of Contents and Off-site Disposal

Estimated Cost:	$ 1,483,500
Implementation Period:	within one year

This alternative involves the removal of contaminated material from exterior tanks and shipment to an off site RCRA approved treatment facility or to a hazardous waste disposal facility. The contents from these tanks would be tested, bulked and consolidated into similar waste streams for disposal. The tanks themselves would be decontaminated during the long-term RI/FS, when tanks are removed from the site. The remaining tanks and tank contents located inside buildings will also be addressed in the RI/FS.

BAGHOUSE DUST (BH)

BH-1 Off-site Treatment and Disposal

Estimated Cost:	$ 405,000
Implementation Period:	within one year

This alternative involves the removal of approximately 530 cubic yards of baghouse dust to an off site RCRA approved treatment and disposal facility. The dust was consolidated into one pile during the previous removal action, covered with a plastic tarp, and secured by large concrete barriers. Sand bags were used to reduce migration from the base of the pile by securing the tarp onto the pile. The waste would be loaded into approximately 30 roll-off containers and transported to an off site RCRA approved treatment and disposal facility. Off site disposal would be used in conjunction with a pre-disposal treatment measure, such as solidification or stabilization, that would be capable of physically or chemically binding inorganic contaminants and significantly reducing their potential to leach.

CHEMICAL PILES (CP)

CP-1 Off-site Treatment and Disposal

Estimated Cost:	$ 21,600
Implementation Period:	within one year

This alternative involves the off site treatment and disposal of approximately twenty-four tons of material from seventy-nine chemical piles scattered throughout the site. Compatible material from these piles would be consolidated and transported to an off site RCRA approved treatment and disposal facility. As with the baghouse dust, off site disposal would be used in conjunction with a pre-disposal treatment measure, such as solidification or stabilization.

TIRE PILES (TP)

TP-1 Off-site Disposal

Estimated Cost:	$ 12,000
Implementation Period:	within one year

This alternative involves the removal and off site disposal of approximately 10,000 tires and burnt rubber. At present, most of these tires are stored in and around Buildings 18 and 70.

OFF-SITE AREA OF CONCERN:

WATER TOWER SOIL (WT)

WT-3: Excavation/Treatment and Disposal

Estimated Cost:	$ 64,800
Implementation Period:	within one year

Under this alternative, contaminated soils under the water tower will be excavated to a depth of six inches using ordinary construction equipment (backhoes and front-end loaders). The volume of contaminated soil is approximately 120 cubic yards. The excavated area would be backfilled with uncontaminated soil and revegetated. The contaminated soils would be loaded into rolloffs, transported to the Roebling Steel site for temporary storage if necessary, and then sent to a RCRA approved treatment and disposal facility. Disposal of the contaminated soil would be used in conjunction with a pre-disposal treatment measure, such as solidification or stabilization, that would be capable of physically or chemically binding inorganic contaminants and significantly reducing their potential to leach. (The focused feasibility study refers to this alternative as PS-3.)

SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

In accordance with the National Contingency Plan, a detailed analysis of each remedial alternative was conducted with respect to each of nine criteria. This section discusses and compares the performance of the remedial alternatives under consideration against these criteria. The nine criteria are described below. All selected alternatives must at least attain the Threshold Criteria. The selected alternative should provide the best trade-offs among the Primary Balancing Criteria. The Modifying Criteria were evaluated following the public comment period.

THRESHOLD CRITERIA

- **Overall Protection of Human Health and Environment** addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

- **Compliance with ARARs** addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of other Federal and State environmental statutes and/or provide grounds for invoking a waiver.

PRIMARY BALANCING CRITERIA

- **Long-term Effectiveness and Permanence** refers to the magnitude of residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time once remedial objectives have been met.

- **Reduction of Toxicity, Mobility, or Volume Through Treatment** is the anticipated performance of the disposal or treatment technologies that may be employed in a remedy.

- **Short-term Effectiveness** refers to the speed with which the remedy achieves protection, as well as the remedy's potential to create adverse impacts on human health and the environment that may result during the construction and implementation period.

- **Implementability** is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the chosen solution.

- **Cost** refers to estimates used to compare costs among various alternatives.

MODIFYING CRITERIA

- **State Acceptance** indicates whether, based on its review of the FFS and Proposed Plan, the NJDEP concurs with, opposes, or has no comment on the preferred alternative.

- **Community Acceptance** will be assessed in the Record of Decision following a review of the public comments received on the FFS report and the Proposed Plan.

ANALYSIS

Each area of concern is considered separately below. The first seven evaluation criteria are considered in the order they are listed above and the merits of each alternative relative to that criterion are evaluated. To avoid redundancy, the remaining two criteria, state acceptance and community acceptance, are summarized for each source area.

The State has reviewed the FFS and Proposed Plan and concurs with the remedy selected in this decision document.

The objective of the community relations activities was to inform the public about the work being performed at the site and to receive input from the public on the remedy. There has been no community opposition to the preferred alternative presented to the public.

NO ACTION

The No Action alternative for each source area would not provide protection of human health and the environment because hazardous contaminants are known to exist in concentrations with significant health risks. The No Action alternative provides a baseline for comparing alternatives that result in remedial responses.

Full protection from immediate risks would not be attained by this alternative. There is a high potential for future exposure to off site human and environmental receptors which needs to be addressed. The container vessels (drums, transformers, tanks) would continue to degrade and potentially leak hazardous substances. The temporarily contained and uncontained contaminated materials (baghouse dust and chemical piles, respectively) would continue to migrate. The tires would remain in place and another fire might occur. Under the no action alternative, no remedial action would be implemented to eliminate the health risk posed by the contaminated soil under the water tower. The toxicity, mobility and volume of the hazardous constituents would not be reduced.

The no action alternative is the lowest in cost, and least effective in addressing the contamination found at the Roebling Steel site. In addition, this alternative would be unacceptable to both the State of New Jersey and the local community.

ON-SITE AREAS OF CONCERN:

DRUMS/DRUM CONTENTS

Removal of the wastes and treatment at an off site facility in both of the remaining alternatives (DR-1 and DR-2) would prevent a release of hazardous substances to the environment, and would fully protect human health and the environment. Both alternatives were used during the past removal action.

There are no chemical-related applicable or relevant and appropriate requirements (ARARs) that need to be met for implementing these alternatives. Activities related to the handling of wastes and the transportation to an off site facility would be accomplished in accordance with the Department of Transportation (DOT) regulations and hazardous waste management requirements. The waste would be removed to a RCRA permitted facility.

Both alternatives, DR-1 and DR-2, effectively remove the waste from the site, eliminating the potential threat to human health. As the hazardous substances would be removed and treated rather than just contained or managed, either alternative would provide a permanent remedy.

Treatment would eliminate the toxicity and/or volume of the waste. In addition, the removal of drums from the site will eliminate the physical hazards associated with drums that might injure trespassers or rupture and leak their contents.

The short-term effectiveness of both alternatives is high, as both can be quickly implemented and both will immediately address the hazards posed by the drums. However, the overpacking alternative requires less time to implement because the majority of the activity would be performed off site. Analysis for the compatibility testing for the bulking operation can be performed in an on site mobile laboratory.

Adequate worker protection during implementation activities can be ensured by wearing the proper level of protection, following the proper handling protocols, and good safety practices. There is an increased risk associated with the bulking operation compared to the overpacking of drums because there is more on site maneuvering of hazardous wastes.

On site bulking and off site treatment ($ 869,000) is less expensive than individually overpacking the drums and shipping them to an off site facility for treatment ($ 1,475,500). The cost estimates for both alternatives are worst case scenarios. These estimates are based on using incineration to treat all of the waste. However, sampling may indicate that some other less expensive treatment method may be appropriate.

TRANSFORMERS/TRANSFORMER CONTENTS

Both remedial alternatives, bulking and incineration of transformer oils, and dismantling and disposal of the transformer housings (TR-1); and shipment of the transformers en masse (TR-2), are protective and constitute a final remedy. The threat of PCB-contaminated oil leaking from the transformers would be addressed. Both alternatives utilize incineration to permanently destroy the contaminants.

There are no chemical-specific ARARs that need to be met before implementation. However, in implementing the action, any oil containing PCBs must be treated in accordance with the Toxic Substances Control Act (TSCA). TSCA regulations for PCB disposal distinguishes between not regulated (< 50 parts per million (ppm)), PCB-contaminated (50 ppm ≤ PCB concentration < 500 ppm) and PCB (≥ 500 ppm). There are disposal restrictions regarding PCB transformers. One method used to dispose of PCB transformer housings containing liquids with PCB concentrations of 500 ppm or greater are regulated under TSCA Part 761.60. PCB transformer housings must be properly drained and flushed. The transformer contents and flush must be incinerated and the housing disposed of in a TSCA PCB approved chemical waste landfill. The PCB transformer housing may not be dismantled.

Both alternatives effectively remove the oil from the site, eliminating the potential threat to human health. Incineration of PCB-contaminated oil provides a permanent remedy. Both alternatives are consistent with the long-term remedy.

Incineration of the contaminated oil will totally destroy the toxicity and mobility of the waste, and will reduce the volume of the oil. In both cases, the transformer would be removed from the site.

Short-term effectiveness is high for both alternatives, as the contaminated oil would be removed from the site and treated.

Both alternatives achieve their maximum effectiveness quickly, although alternative TR-2 requires less time to implement than TR-1. Short-term hazards involved in handling and transporting the oils include risks to workers as well as a potential threat to trespassers that might come in direct contact with accidentally spilled waste. Any short-term impacts during implementation can be mitigated by following proper protocols and requirements.

The multi-staged process of sampling and bulking the PCB-contaminated oil, transporting it to an off site incinerator, and dismantling and disposing of the transformer housings increase the risk during implementation activities of alternative TR-1.

Shipment of transformers en masse ($ 1,541,000) is cheaper than bulking and dismantling all the transformers ($ 1,840,000), and can be performed in an expedited fashion.

TANK CONTENTS

Bulking of tank contents and off site disposal (TK-1) is protective of human health and the environment because it eliminates the future threat of leakage by further deterioration and tampering of the tanks. There are no chemical related ARARs that need to be met before implementation. However, shipment and disposal must be treated in accordance with RCRA, if the contents are RCRA hazardous wastes.

Bulking of tank contents and off site disposal is the only alternative that passes the threshold evaluation. Disposal of the waste to an off site RCRA approved treatment and disposal facility may reduce its toxicity, mobility, and volume, and is a permanent treatment technology.

The short-term risks associated with bulking and transporting the waste to a disposal facility are minimal because of the small volume of waste found in the tanks being addressed. The waste stream characterization should not be complex, which would limit the number of bulking chambers and tanker trucks. In addition, the approach can be quickly implemented because of the small number of tanks.

The estimated cost of this alternative is $1,483,500.

BAGHOUSE DUST

Off site treatment and disposal of the baghouse dust is protective of human health and the environment because it eliminates the risk of direct exposure, which may occur through tampering, or weathering of the tarp. Landfilling this material involves the placement of a restricted RCRA listed waste (K061--emission control dust/sludge from the primary production of steel in electric furnaces) and RCRA Land Disposal Restrictions must be considered before the waste is land disposed. Treatment standards, either concentration levels or a specified technology, would be determined before the material can be removed to a landfill. The treatment facility must test wastes after treatment and before land disposal to ascertain that LDR treatment standards have been met.

Disposal of the baghouse dust to an off site RCRA approved treatment and disposal facility is the only alternative that passes the threshold evaluation. This alternative eliminates migration and, depending on the treatment technology, may decrease toxicity. Off site disposal used in conjunction with a pre-disposal treatment measure would be consistent with the long-term remedy.

The short-term risks associated with this alternative can be minimized by using dust control measures to prevent migration caused by moving vehicles and equipment, and wind erosion during the implementation stage. The waste would be loaded into approximately 30 roll-off containers and transported to the treatment and disposal facility.

The cost of this alternative is estimated at $405,000.

CHEMICAL PILES

Off site treatment and disposal of the chemical piles is protective of human health and the environment because it eliminates the risk of exposure by migration and direct contact at the site.

Landfilling this material involves the removal of a characteristic hazardous waste to an off site RCRA approved treatment and disposal facility and must comply with the appropriate land disposal restrictions. The treatment facility must test wastes after treatment and before land disposal to ascertain that LDR treatment standards have been met.

Off site treatment and disposal of the chemical piles is the only alternative that passes the threshold evaluation. This alternative raises the same issues regarding dust control measures and land disposal restrictions as were considered for the baghouse dust.

The cost of this alternative is estimate at $21,600.

TIRE PILES

Off site disposal of approximately 10,000 tires is a final remedy to the threat of future tire fires and is protective of human health and the environment. There are no chemical-related ARARs that need to be met.

Tire fires are particularly hazardous because of the petrochemical composition of the tires. When ignited, the tires produce a smoke plume that contains many gaseous byproducts and particulates, including hazardous organic compounds. Burning tires produce oils that can make the fire uncontrollable. There is also a possibility of the fire spreading to an area where flammable or explosive chemicals are located. Removing the tires would insure the protection of human health and the environment from this hazard.

Off site disposal of tires is the only alternative that passes the threshold evaluation. This alternative is a permanent remedy and is effective in eliminating the future threat of tire fires and the production and migration of hazardous by-products.

The disposal of tires has no short-term effects and is readily implementable. The cost of off site disposal of the tires is $12,000.

OFF-SITE AREA OF CONCERN:

WATER TOWER SOIL

Under this alternative, action would be taken to excavate the contaminated soil and transport it to a RCRA approved treatment and disposal facility. Contaminated surface soil (i.e., lead levels greater than 250 ppm) is limited to the area under the water tower.

Treatment and disposal of contaminated material to an off site facility would fully protect human health and the environment. RCRA Land Disposal Restrictions must be considered before the waste is land disposed. Treatment standards, either concentration levels or a specified technology, would be determined before the material is removed to a landfill.

Activities related to the handling of wastes and transportation to an off site facility would be accomplished in accordance with U.S. Department of Transportation (DOT) regulations and hazardous waste management requirements. Any temporary storage of rolloffs or drums containing contaminated material on the Roebling Steel site would be conducted in accordance with the RCRA standards regarding storage of hazardous waste for off site disposal. The contaminated material will ultimately be removed to a RCRA permitted facility.

This alternative will effectively remove the waste from the area, eliminating the potential threat to human health. Since the hazardous material will be removed and properly disposed, this alternative would provide a permanent remedy. This alternative would eliminate future migration of the contaminated soil.

The short-term effectiveness of this alternative is high, as it can be quickly implemented and would immediately address the hazards posed by the contaminated soils. Worker hazards would be minimal due the nature of the removal. Adequate worker protection during implementation activities can be ensured by following appropriate safety practices.

Excavation and off site treatment and disposal of the contaminated soil under the water tower is the only alternative that passes the threshold evaluation. The cost of this alternative is approximately $64,800.

SELECTED REMEDY

After a thorough review and evaluation of the alternatives presented in the Focused Feasibility Study, to achieve the best balance among all evaluation criteria, EPA presented Overpacking of Drums and Off-site Disposal (DR-2), Transformer Shipment En Masse (TR-2), Bulking of Tank Contents and Off-site Disposal (TK-1), Off-site Treatment and Disposal of Baghouse Dust (BH-1), Off-site Treatment and Disposal of Chemical Piles (CP-1), Off-site Disposal of Tires (TP-1), and Excavation, Treatment and Disposal of Water Tower Soil (WT-3) to the public as the preferred remedy for the Roebling Steel site. The input received during the public comment period, consisting primarily of questions and statements transmitted at the public meeting held on January 18, 1990, is presented in the attached Responsiveness Summary. Public comments received encompassed a wide range of issues but did not necessitate any changes in the remedial approach proposed to be taken at the site. Accordingly, the preferred alternatives were selected by EPA as the remedial solution for the site.

The estimated total cost for all tasks associated with this remedy is $5,003,400. The tasks identified as part of the remedy are: labor, equipment and material; transportation; disposal; and analytical (Table 4).

TABLE 4

ESTIMATED COST OF SELECTED REMEDIES

	Estimated Costs
DRUMS/DRUM CONTENTS COMPONENT	
CONSTRUCTION (757 drums and 44,000 gallons of contents)	
• Labor, Equipment and Materials	$110,500
• Transportation	52,500
• Disposal	640,000
• Analytical	480,000
CONTINGENCY (15%)	192,500
TOTAL CAPITAL COST	$1,475,500
TRANSFORMER/TRANSFORMER CONTENTS COMPONENT	
CONSTRUCTION (183 transformers and 67,000 gallons of contents)	
• Transportation of Transformer/ Contents, Incineration of Contents, Dismantling and Decontamination of Transformer	$1,340,000
CONTINGENCY (15%)	201,000
TOTAL CAPITAL COST	$1,541,000
TANK CONTENTS COMPONENT	
CONSTRUCTION (150,000 gallons of contents)	
• Labor, Equipment and Materials	negligible
• Transportation	$84,000
• Disposal	1,200,000
• Analytical	6,000
CONTINGENCY (15%)	193,500
TOTAL CAPITAL COST	$1,483,500

TABLE 4 (cont.)

ESTIMATED COST OF SELECTED REMEDIES

	Estimated Costs
BAGHOUSE DUST COMPONENT	
CONSTRUCTION (530 cubic yards)	
• Transportation	$97,500
• Fixation (Stabilization)	93,750
• Disposal	108,750
CONTINGENCY/SERVICE/AWARD COSTS (35%)	105,000
TOTAL CAPITAL COST	$405,000
CHEMICAL PILES COMPONENT	
CONSTRUCTION (40 cubic yards)	
• Transportation	$5,200
• Fixation (Stabilization)	5,000
• Disposal	5,800
CONTINGENCY/SERVICE/AWARD COSTS (35%)	5,600
TOTAL CAPITAL COST	$21,600
TIRES COMPONENT	
CONSTRUCTION (10,000 tires)	
• Disposal	$10,000
CONTINGENCY (20%)	2,000
TOTAL CAPITAL COST	$12,000

TABLE 4 (cont.)

ESTIMATED COST OF SELECTED REMEDIES

	Estimated Costs
WATER TOWER SOIL COMPONENT	
CONSTRUCTION (120 cubic yards)	
• Transportation	$15,600
• Fixation (Stabilization)	15,000
• Disposal	17,400
CONTINGENCY/SERVICE/AWARD COSTS (35%)	16,800
TOTAL CAPITAL COST	$64,800

COST SUMMARY FOR THE SELECTED REMEDIES

DRUMS (DR-2)	($)1,475,500
TRANSFORMERS (TR-2)	1,541,000
TANKS (TK-1)	1,483,500
BAGHOUSE DUST (BH-1)	405,000
CHEMICAL PILES (CP-1)	21,600
TIRE PILES (TP-1)	12,000
WATER TOWER SOIL (WT-3)	64,800
TOTAL PROJECT COST	($)5,003,400

Some additional activities may be performed during the initial phases of the remedial design process and prior to implementation of the selected remedial alternatives. A treatability study may be conducted to evaluate the effectiveness of soil and dust treatment through stabilization, if appropriate.

STATUTORY DETERMINATIONS

EPA's selection of alternatives for the seven areas of concern comply with the requirements of Section 121 of CERCLA as amended by SARA. The interim action is protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to this action, and is cost-effective. This action utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable, given the limited scope of the action. The statutory preference for treatment that reduces toxicity, mobility or volume will be addressed in this interim action, as appropriate. The interim action does not constitute the final remedy for the site. Subsequent actions are planned to fully address the remaining principle threats posed by this site. A brief, site-specific description of how the selected remedy complies with the statutory requirements is presented below.

1. Protection of Human Health and the Environment

All alternatives are protective of human health and the environment, dealing effectively with the threats posed by the contaminants which were identified. The principle threats involve:

- The inhalation and dermal contact of hazardous materials found in drums, transformers and tanks.
- The inhalation of uncontained baghouse dust and chemical piles that may become airborne via resuspension through wind erosion or mechanical disturbances.
- The physical hazard and inhalation of hazardous constituents released by burning tires.
- The incidental ingestion or inhalation of contaminated soil under the water tower through migration into the air via wind erosion and young children playing in the playground.

The selected remedy addresses these contaminant pathways by capturing and removing the contaminant sources before any additional migration continues. In implementing the interim action, the idea is to minimize the risks associated with construction and the length of time for implementation.

2. Compliance with Applicable of Relevant and Appropriate Requirements

Action-Specific

All remedial activities will comply with RCRA/CERCLA regulations.

- RCRA Subpart 268 - Land Disposal Restrictions
- RCRA Part 264 standards are applicable to the bulking and storage of hazardous waste for off site disposal. If the material, once displaced, remains on site for more than 90 days, RCRA standards are applicable to the storage of hazardous waste on the facility property. Even if not stored for more than 90 days, RCRA standards are relevant and may be appropriate.
- RCRA Parts 262 and 263 standards are applicable to the proposed remedial activities involving RCRA hazardous waste. These provide standards for manifesting, transport, and recordkeeping. In addition, the date which accumulation began in each container must be clearly indicated on each container. Other requirements listed in Part 262 are also applicable to site operations.
- The baghouse dust is a restricted RCRA listed waste (K061--emission control dust/sludge from the primary production of steel in electric furnaces). All remedial activities will comply with applicable RCRA regulations.

Chemical-Specific

- EPA plans to treat the baghouse dust, chemical piles, and water tower soil in conjunction with off site disposal. The pre-disposal treatment measures would reduce toxicity to levels (treatment standards) specified by the RCRA Land Disposal Restrictions. Treatment methods will have to reduce the waste's leachability to TCLP concentrations established by LDRs.
- Toxic Substances Control Act regulates the disposal of fluid and transformer housings contaminated with PCBs (Part 761). TSCA distinguishes between the various concentrations: not regulated (< 50 ppm) except when used for dust control and

fuel, PCB-contaminated (50 ppm ≤ PCB concentration < 500 ppm) and PCB (≥ 500 ppm).

- TSCA Part 761 regulations are applicable to decontamination of heavy equipment (lift trucks, rams or presses) used during construction activities.

To Be Considered (TBCs)

- The shipment of hazardous waste off site to a treatment facility should be consistent with the Off-Site Policy Directive Number 9834.11 issued by Office of Solid Waste and Emergency Response (OSWER) which became effective November 13, 1987. This directive is intended to ensure that facilities authorized to accept CERCLA generated waste are in compliance with RCRA operating standards.
- NJDEP Soil Cleanup Objectives for concentrations of lead in soil, which range between 250-1000 ppm.
- U.S. Department of Health and Human Services (Centers for Disease Control) health-based concentrations of lead in soil, ranging between 500-1000 ppm.
- Potential emissions are expected in the form of volatilization of hazardous constituents and fugitive dust during excavation, transport and disposal of baghouse dust, chemical piles and contaminated soil. Dust control measures will be included in the design specifications, and health and safety plans to ensure compliance with RCRA, Clean Air Act and State regulations during implementation.

3. Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

The selected remedy utilizes permanent solutions and treatment (or resource recovery) technologies to the maximum extent practicable by providing the best balance among nine evaluation criteria of all the alternatives examined. Contaminated material will be transported off site to an appropriate RCRA approved treatment and disposal facility. Of the five primary balancing criteria, short-term effectiveness and implementability were the most decisive factors in the selection process. Alternatives that offered minimal short-term risks, time-efficiency and maximum effectiveness were maintained through the selection process.

4. Preference for Treatment as a Principal Element

The selected remedy fully satisfies this criterion. The variety of wastes found at the site indicates that several treatment methods (e.g. incineration, stabilization, etc.) will need to be used. Incineration will be the preferred technology for transformer oil contaminated with PCBs, and drum and tank contents high in organic content but low in metal content. Those materials high in inorganics (metals) will be treated before landfilling in a RCRA approved facility.

5. Cost-Effectiveness

Of the alternatives which most effectively address the principle threats posed by the contamination at the site, the selected remedy affords the highest level of overall effectiveness proportional to its cost. The selected remedy is cost-effective and represents a reasonable value for the money. Based on the information generated during the FFS, the estimated total project cost is $5,007,400.

DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan for the Roebling Steel site was released to the public in January 1990. The Proposed Plan identified the preferred alternatives for each source area. EPA reviewed all written and verbal comments submitted during the public comment period. Upon review of these comments, it was determined that no significant changes to the selected remedy, as it was originally identified in the Proposed Plan, were necessary.

APPENDIX A

NJDEP LETTER OF CONCURRENCE

Let's protect our earth

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUDITH A. YASKIN, COMMISSIONER
CN 402
TRENTON, N.J. 08625-0402
(609) 292-2885
Fax: (609) 984-3962

April 10, 1990

Mr. Constantine Sidamon-Eristoff
Regional Administrator
United States Environmental Protection
Agency, Region II
26 Federal Plaza, 7th Floor
New York, NY 10278

SUBJECT: Roebling Steel Superfund Site
Record of Decision

Dear Mr. Sidamon-Eristoff:

A draft Record of Decision (ROD) has been prepared by the United States Environmental Protection Agency (USEPA), in accordance with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), for the Roebling Steel Superfund Site in Florence Township, Burlington County, New Jersey. The ROD covers interim actions to address the most urgent problems at the site; additional remedial actions to address long term problems will be forthcoming. The State of New Jersey concurs with the interim remedy as quoted below from the Declaration in the Record of Decision.

Description of the Selected Remedy

The interim action described in this document is the first of a series of planned remedial action operable units for the site. There have been two removal actions conducted to stabilize the most hazardous areas of the site. The operable unit which is the subject of this Record of Decision, will address on-site areas that pose a sufficiently imminent hazard as to require expedited remediation, and that were not addressed in the previous removal actions. These areas include the remaining drums and exterior tanks, transformers, a baghouse dust pile, chemical piles and tires. The first operable unit will also address soil under a water tower in the Roebling Park adjacent to the Roebling Steel site. Operable units for long-term remediation of the site will be determined as appropriate. A comprehensive Remedial Investigation will determine the nature and extent of contamination over the entire site. Areas of concern include soils, surface water, ground water, sediments, air quality, and other remaining contamination sources.

The major components of the selected remedy for this first operable unit include the following:

- DRUMS/DRUM CONTENTS: Overpacking and Off-site Disposal
- TRANSFORMERS/TRANSFORMER CONTENTS: Shipment of Transformers En Masse
- TANK CONTENTS: Bulking of Contents and Off-site Disposal
- BAGHOUSE DUST: Off-site Treatment and Disposal
- CHEMICAL PILES: Off-site Treatment and Disposal
- TIRES: Off-site Disposal
- WATER TOWER SOIL: Off-site Treatment and Disposal

It is our understanding that for the Water Tower Soil, which is in a park used by area children, the clean-up standard for lead will be 250 parts per million.

After a review of the final decision document, the State may have additional comments to be addressed by USEPA during remedial design. These comments would not affect the State's concurrence with the above remedy.

The State of New Jersey appreciates the opportunity to participate in this decision making process and looks forward to future cooperation with USEPA.

Very truly yours,

Judith A. Yaskin

Judith A. Yaskin, Commissioner
Department of Environmental Protection

APPENDIX B

ADMINISTRATIVE RECORD INDEX

ROEBLING STEEL SITE
ADMINISTRATIVE RECORD FILE *
INDEX OF DOCUMENTS

REMOVAL RESPONSE

Correspondence

P. 1-82	Waste Characterization Forms (WCFs), Drum Disposal Characterization from Removal Action (U.S. EPA), prepared by ThermalKEM, Inc., 8/88
P. 83-202	Pollution Reports, prepared by U.S. EPA, 9/24/87-9/1/89.
P. 203-461	Report: On-Scene Coordinator's Report, Roebling Steel Company NPL Site, Emergency Response and Removal Action, Florence Township, Burlington County, New Jersey, prepared by Mr. Charles E. Fitzsimmons, U.S. EPA and Mr. Christopher A. Militscher, U.S. EPA, 2/2/90.

REMEDIAL INVESTIGATION

Sampling and Analysis Plans

P. 462-707	Report: Field Sampling and Analysis Plan, Remedial Investigation/Feasibility Study, Roebling Steel Site, Florence Township, New Jersey, Volume I, prepared by Ebasco Services, Inc., 3/89.

Sampling and Analysis Data/Chain of Custody Forms

P. 708-774	Report: Roebling Steel Site, Slag Disposal and Park Area Surface Soil and Analysis Results, 1/90.

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* Administrative Record File available 3/8/90.

Note: Company or organizational affiliation is mentioned only when it appears in the record.

Work Plans

P. 775-958 Report: Work Plan, Remedial Investigation/Feasibility Study, Roebling Steel Site, Florence Township, New Jersey, prepared by Ebasco Services, Inc., 3/89.

P. 959-1005 Report: Attachment I: Revisions to Work Plan and Field Sampling and Analysis Plan, 6/27/89.

P. 1006-1019 Report: Attachment II: Roebling Steel Site Revisions to Work Plan and Field Sampling and Analysis Plan, 8/89.

FEASIBILITY STUDY

Feasibility Study Reports

P. 1020-1219 Report: Focused Feasibility Study, Roebling Steel Company, Florence Township, New Jersey, prepared by U.S. EPA, Region II, 1/90. References are listed on p. 1087.

Correspondence

P. 1220-1221 Memorandum to Distribution from Mr. Anthony J Farro, New Jersey Department of Environmental Protection, re: Draft Proposed Plan, 10/3/89. The distribution list is attached.

P. 1222-1501 Letter to Mr. Harry J. Rzomp, Florence Township Board of Fire Engineers, and Ms. Donna J. Boston, Florence Township Office of Emergency Management, and Mr. C. Lester Smith, Florence Township Board of Fire Commissioners, from Mr. Bruce M. Benedetti, Mayor of Florence New Jersey, re: Focused Feasibility Study, 1/19/90. The Roebling Steel Site, Building-by-Building Schematic Drawings of Contaminant Sources and the Roebling Steel Site Contaminant Source Inventory Detail Report reports are attached.

HEALTH ASSESSMENTS

Correspondence

P. 1502-1537	Article: "Preventing Lead Poisoning in Young Children," prepared by the Centers for Disease Control, U.S. Department of Health and Human Services, 1/85.
P. 1538-1544	Memorandum to Ms. Tamara Rossi, U.S. EPA, from Ms. Denise Johnson, ATSDR, re: Sampling data, 10/13/88. A meeting agenda, and four site layout figures are attached.
P. 1545-1545	Letter to Ms. Tamara Rossi, U.S. EPA, from Ms. Denise Johnson, ATSDR, re: Soil sampling data, 11/10/89.

PUBLIC PARTICIPATION

Community Relations Plans

P. 1546-1568	Report: *Final Community Relations Plan for the Roebling Steel Site, Florence Township, Burlington County, New Jersey*, prepared by Ebasco Services, Inc., 3/89.

Public Notices

P. 1569-1570	Public Notice inviting public comment on the proposed cleanup alternatives for the Roebling Steel Site, Interim Action, Roebling, New Jersey, (undated). A draft copy is attached.

Public Meeting Transcripts

P. 1571-1676	Transcript: *Public Meeting, Roebling Steel Company Site*, 1/18/90.

Fact Sheets and Press Releases

P. 1677-1677	Fact Sheet: "Focused Feasibility Study for Roebling Steel Site," prepared by U.S. EPA, 1/90.
P. 1678-1679	Press Release: "EPA to Hold Public Meeting on Proposed Interim Cleanup Plan for Roebling Steel Company Superfund Site," prepared by U.S. EPA, 1/4/90.

Proposed Remedial Action Plans

P. 1680-1691 Report: Proposed Plan, Roebling Steel Company Site, Florence Township, New Jersey, prepared by U.S. EPA, 1/90.

Correspondence

P. 1692-1692 Letter to Ms. Marian Hubler, Florence Township Public Library, from Ms. Tamara Rossi, U.S. EPA, re: Documents for the information repository, 1/5/90.

P. 1693-1693 Letter to Mr. Richard Brook, Florence Township Municipal Building, from Ms. Tamara Rossi, U.S. EPA, re: Documents for the information repository, 1/5/90.

P. 1694-1706 Letter to Ms. Tamara Rossi, U.S. EPA, from Mr. Bruce Benedetti, Mayor, Township of Florence, re: Off-site safety measures, 1/30/90.

EBASCO ENVIRONMENTAL
A Division of EBASCO SERVICES INCORPORATED
EBASCO
160 Chubb Avenue Lyndhurst, NJ 07071-3586 (201) 460-6500

March 21, 1990
RMOII-90-059

Ms. Lillian Johnson
Chief Community Relations Staff
US Environmental Protection Agency
26 Federal Plaza
New York, NY 10278

Subject: REM III PROGRAM - EPA CONTRACT NO. 68-01-7250
WORK ASSIGNMENT NO. 226-2L91
ROEBLING STEEL COMPANY SITE - OPERABLE UNIT 01
FINAL RESPONSIVENESS SUMMARY

Dear Ms. Johnson:

Ebasco Services Incorporated (EBASCO) is pleased to submit this Final Responsiveness Summary for the Roebling Steel Company Site Operable Unit 01. If you have any comments, please call me at (201) 460-6434 or Steven Senior at (201) 906-2400.

Very truly yours,

Dev R Sachdev, PhD PE
Regional Manager-Region II

cc: M S Alvi
J Frisco
C Tenerella
R Fellman
F Tsang
S Schmid
P Enneking
J Giordano
S Senior

ACKNOWLEDGEMENT OF RECEIPT

Please acknowledge receipt of this enclosure on the duplicate copy of this letter and return the signed duplicate letter to: Dr. Dev Sachdev, Ebasco Services Incorporated, 160 Chubb Avenue, Lyndhurst, New Jersey 07071.

Ms. Lillian Johnson

Date

APPENDIX C

RESPONSIVENESS SUMMARY

EPA WORK ASSIGNMENT NO. 226-2L91
EPA CONTRACT NO. 68-01-7250

FINAL
RESPONSIVENESS SUMMARY
FOR
OPERABLE UNIT 01
OF THE
ROEBLING STEEL COMPANY SITE
FLORENCE TOWNSHIP, NEW JERSEY

MARCH 1990

NOTICE

The preparation of this document has been funded by the United States Environmental Protection Agency (U.S.EPA) under REM III Contract No.68-01-7250 to Ebasco Services, Inc. (EBASCO).

REM III PROGRAM

REMEDIAL PLANNING ACTIVITIES AT SELECTED UNCONTROLLED HAZARDOUS SUBSTANCE DISPOSAL SITES WITHIN EPA REGIONS I-IV

EPA WORK ASSIGNMENT NO. 226-2L91
EPA CONTRACT NO. 68-01-7250

FINAL RESPONSIVENESS SUMMARY
OPERABLE UNIT 01
ROEBLING STEEL COMPANY SITE

FLORENCE TOWNSHIP, NEW JERSEY

MARCH 1990

Prepared by:

Steven T. Senior
Community Relations
Specialist
ICF Technology, Inc.

3/20/90
Date

Approved by:

Joanne M. Giordano
REM III Region II
Community Relations Manager
ICF Technology, Inc.

3/30/90
Date

Approved by:

Stephen Schmid
REM III Region II
Site Manager
Ebasco Services, Inc.

3-27-90
Date

Approved by:

Dev R. Sachdev
REM III Region II
Program Manager
Ebasco Services, Inc.

3/20/90
Date

OPERABLE UNIT 01
FOR THE
ROEBLING STEEL COMPANY SITE
FLORENCE TOWNSHIP, NEW JERSEY

FINAL RESPONSIVENESS SUMMARY

The U.S. Environmental Protection Agency (EPA) held a public comment period from January 8, 1990 through February 6, 1990 for interested parties to comment on EPA's Focused Feasibility Study (FFS) and Proposed Plan for Operable Unit 01 of the Roebling Steel Company site and the sampling program conducted in the Roebling Park.

In addition, the EPA held a public meeting on January 18, 1990 at the Roebling Volunteer Fire Company # 3 Station in Roebling, New Jersey to discuss the FFS, outline the Proposed Plan, and present the EPA's preferred remedial alternatives for Operable Unit 01 for the Roebling Steel Company site.

This document is a responsiveness summary highlighting comments received at the public meeting and those received during the public comment period. It presents both those comments and the EPA responses to them. A responsiveness summary is required by Superfund policy for the purpose of providing the EPA and the public with a summary of citizens' comments and concerns about the site. All comments summarized in this document will be factored into the EPA's final decision for selection of the remedial alternatives for cleanup of the Roebling Steel Company site Operable Unit 01.

This responsiveness summary is organized in the following sections.

I. RESPONSIVENESS SUMMARY OVERVIEW

This section briefly describes the background of the Roebling Steel Company site and outlines the proposed remedial alternatives for Operable Unit 01.

II. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

This section provides a brief history of community interest and concerns regarding the Roebling Steel Company site.

III. SUMMARY OF MAJOR QUESTIONS AND COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND EPA RESPONSES TO THESE COMMENTS

This section summarizes both oral and written comments submitted to the EPA at the public meeting and during the public comment period, and provides the EPA's responses to these comments.

IV. REMAINING CONCERNS

This section discusses community concerns that the EPA should be aware of as they prepare to undertake remedial design and remedial action activities at the Roebling Steel Company site.

Attached are four appendices. Appendix A contains the Proposed Plan for Operable Unit 01. Appendix B contains the sign-in sheet of attendees at the January 18, 1990 public meeting. Appendix C contains the public notice issued to the Burlington County Times and printed January 7, 1990 - January 8, 1990. Appendix D contains the Superfund Update distributed to approximately two hundred (200) individuals on the mailing list.

I. RESPONSIVENESS SUMMARY OVERVIEW

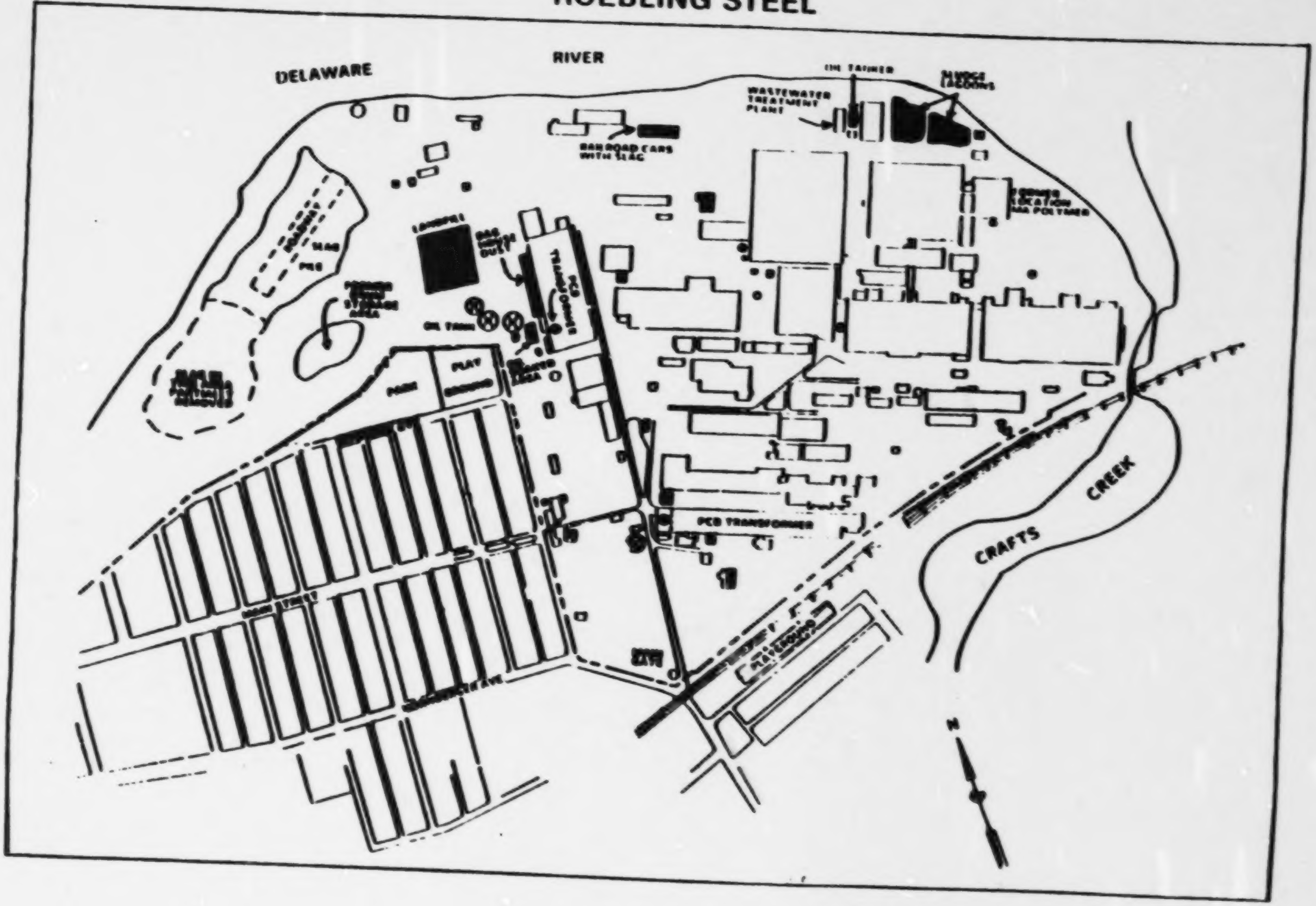
A. Site Description

The Roebling Steel Company site is a large site, approximately 200-acres, and is presently an inactive facility that was used from 1906 until 1982 primarily for production of steel products. In recent years, parts of the site have been used for various industrial operations. There are approximately 55 buildings on-site, occupying most of the site, connected by a series of paved and unpaved access roads. Slag residue from steel production was disposed of on the western side of the site and filled in a portion of the Delaware River. Numerous potential sources of contamination exist at the site, including 757 drums containing liquids and solids, 106 tanks, 183 transformers containing PCB-contaminated oils, 52 railroad cars containing slag, dry sludge and debris, pits and sumps, process buildings containing chemical treatment baths and numerous chemical piles, two sludge lagoons, friable asbestos insulation falling from pipes, a baghouse dust pile, tire piles, and a landfill.

The site is located in the Village of Roebling in Florence Township, Burlington County, New Jersey (Figure 1). It is bordered by Second Avenue on the west and Hornberger Avenue on the south. The Roebling Park, a public playground adjacent to the site, consists of a large open area which includes swings, basketball and tennis courts, and a large elevated water tower. The Delaware River forms the northern boundary of the site, and the eastern shoreline of Crafts Creek forms its eastern boundary. U.S. Route 130 is located just south of the site.

Residential lands are located to the west and southwest of the site at a zoning density of approximately eight dwellings per acre. The closest residences to the site are approximately 100 feet away from the property boundaries and 250 feet south of the slag disposal area.

FIGURE I
SITE MAP
ROEBLING STEEL


DELAWARE
RIVER
WASTEWATER TREATMENT PLANT
SLUDGE LAGOONS
FORMER LOCATION MA POLYMER
RAILROAD CARS WITH SLAG
SLAG
PILE
BAG HOUSE DUST
PCB TRANSFORMER
OIL TANK
PLAY GROUND
PARK
PCB TRANSFORMER
CRAFTS
CREEK
N

B. EPA's Activities at the Site

Recognizing the size and complexity of the Roebling Steel Company site, the EPA has undertaken a multi-tiered approach to addressing the contamination problems at the site. This approach has included removal activities and remedial activities. Removal activities are those activities undertaken to decrease immediate risks to public health and the environment. The FFS identifies specific removal actions for several contaminant sources that can readily be disposed of and pose a significant risk.

Remedial activities are designed to determine the nature and extent of contamination on-site; to identify and analyze remedial action alternatives to cleanup the site; and to eliminate potential long-term health and safety risks.

Previous Removal Actions

Previous removal actions at the Roebling Steel Company site conducted by regulatory agencies included two cleanups: the first was performed in 1985 by the New Jersey Department of Environmental Protection (NJDEP) and the second was performed in 1987 - 1989 by the EPA. The objective of these actions were to stabilize areas then identified as the most hazardous areas of the site prior to more detailed investigations (i.e. FFS and RI/FS). Explosive chemicals were removed from the site in the first removal action (1985). In the second removal action, lab pack containers and drums of corrosive and toxic materials, acid tanks and compressed gas cylinders were removed.

Previous and Future Remedial Action Activities

The EPA has completed several phases of their remedial activities at the Roebling Steel Company site. The purpose of this phased approach is to most expeditiously address those contaminants that were identified as presenting an imminent threat to human health and the environment and simultaneously address the remainder of the contaminants in a more methodical fashion. These activities included a preliminary site investigation and assessment of the problem (i.e., identification of the contaminant sources), and the FFS to address those contamination sources identified in past removal actions.

Currently, a remedial investigation and feasibility study (RI/FS) is being conducted at the site. The RI/FS is an extensive study. The first stage of this study, the RI, defines the nature and extent of contamination and is used for conducting a public health and environmental risk assessment. A sampling program is currently being conducted to determine the level and extent of contamination. Both source and environmental media are being investigated including the following:

- Surface and subsurface soils;
- Surface water and sediments;
- Air;
- Groundwater;
- Buildings, landfills, tanks/baths, pits and sumps, pipe insulation; and,
- Railroad cars, the slag pile, and lagoons.

The second stage of the study, the FS, will identify and evaluate remedial alternatives for addressing those contaminants identified in the RI as representing a threat to human health and the environment.

Those contaminant sources not removed in prior cleanup activities and still requiring expeditious assessment were the subject of this FFS and remedial alternatives were evaluated for them. The EPA's preferred remedial alternatives for those areas are detailed in the following section.

C. Summary of Preferred Remedial Alternatives

The public meeting addressed both on-site and off-site areas of concern. The following section summarizes the preferred remedial alternatives for Operable Unit 01 at the Roebling Steel Company site. These alternatives are described in detail in the FFS and in the Proposed Plan for Operable Unit 01 found in Appendix A.

On-Site Areas of Concern

- DRUMS/DRUM CONTENTS
  DR-2 Overpacking of Drums and Off-site Disposal

- TRANSFORMERS/TRANSFORMER CONTENTS
  TR-2 Shipment of Transformers En Masse

- TANK CONTENTS
  TK-1 Bulking of Contents and Off-site Disposal

- BAGHOUSE DUST
  BH-1 Off-site Treatment and Disposal

- CHEMICAL PILES
  CP-1 Off-site Treatment and Disposal

- TIRE PILES
  TP-1 Off-site Disposal

Off-Site Area of Concern:

- WATER TOWER SOIL
  WT-3: Excavation/Treatment and Disposal

Selection of an Alternative

The EPA's selection for remediation for the Roebling Steel Company site Operable Unit 01 will be based on the requirements of the Comprehensive Environmental Compensation and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA) regulations. These regulations require that a selected site remedy be protective of human health and the environment, cost-effective, and in accordance with other statutory requirements. Current EPA policy also emphasizes permanent solutions incorporating on-site remediation of hazardous waste contamination whenever possible. Final selection of a remedial alternative will be documented in the Record of Decision (ROD) only after consideration of all comments received by the EPA during the public comment period are addressed in this responsiveness summary.

II. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

Residents have expressed a high level of interest throughout the removal operation, FFS, and during other site-related incidents (i.e. fires, picket lines). The community as a whole is proud of its history as a company town around the J.A. Roebling's Sons Company steel mill and would like to see the area revitalized. Residents believe they could have been kept better informed after the removal action performed by the EPA's Environmental Response Team at the Roebling Steel Company site but have expressed appreciation for improved communications since then. The primary concerns citizens have raised include:

- uncertain communication lines between the EPA and local officials and residents;
- potential health affects associated with exposure to contaminants in on-site and off-site areas;
- impacts on local employment and the availability of bidding procedures for local contractors; and
- potential fire hazards on-site and contingency planning.

III. SUMMARY OF MAJOR QUESTIONS AND COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND EPA RESPONSES TO THESE COMMENTS

Comments raised during the public comment period for the Roebling Steel Company site Operable Unit 01 and the EPA responses are summarized in the following section. Comments received during the public comment period are organized into five categories: Focused Feasibility Study/Remedial Alternatives, Health Related Issues, RI/FS Activities, Cost/Schedule Issues, and Future Activities.

A. Focused Feasibility Study/Remedial Alternatives

Comment:

Several issues were raised concerning the specific remedial alternatives preferred: specifically, would this remedial action remove all of the drums on-site; and, could all the tanks on-site be dealt with at this time, including those in the buildings.

EPA Response:

The planned remedial action includes the removal of all known drums from the site. They will be packed in over-pack drums and removed to an appropriate disposal facility. In order to expedite this remedial action, the EPA has chosen not to remove those tanks in the buildings because of the poor structural integrity of many of the buildings, potential asbestos contamination, and safety hazards that these present. Those tanks and other health and safety hazards presented by the buildings will be dealt with in future remedial actions.

Comment:

Clarification of the classification of transformers by type was requested at the meeting. Also requested was whether this remedial action includes the disposal of all transformers on-site.

EPA Response:

The preferred remedial alternative for transformers (TR-2) involves the shipment of those transformers containing PCB-contaminated oil to a facility that would properly dispose of the contaminated oil, dismantle and clean the transformers and dispose of the carcasses. Those transformers on-site that are "dry" -- those manufactured without oil -- do not present a hazard.

Comment:

Questions concerning the amount and type of the analytical data presented in the FFS were asked. An individual felt that many of the analytical services performed were excessive and unnecessary. He questioned the use of RCRA parameters in some of the testing.

EPA Response:

The analyses performed were done to properly characterize the contaminants to be removed. The FFS was conducted with the intent being to expedite the removal of those imminently hazardous areas on-site. To do this, the EPA conducted many analyses during the FFS, which are often done during the remedial design phase of a cleanup, to expedite the cleanup activities.

Comment:

An individual questioned the quality assurance aspect of the analytical data presented in the FFS. Specifically, he felt that the numbers of unreported results, the numbers of estimated results, and the analytical results of the quality assurance/quality control samples potentially indicated an unacceptable level of confidence in the analyses.

EPA Response:

The EPA determines data quality objectives based on expected results and potential remediation techniques being examined. Given available information on the areas addressed in the FFS and the desire to expedite remediation, the EPA has determined that the analytical results are sufficient to proceed with the remedial activities.

Comment:

Mayor Benedetti requested that the EPA consider temporarily capping the slag area of the site. He indicated that a potential source of capping material could be obtained from the Burlington County Solid Waste Authority.

EPA Response:

The EPA is approaching the remediation of the Roebling Steel Company site in phases. The FFS has addressed several areas that represent a high hazard. The slag area was not addressed by this FFS but will be considered in the future by the on-going RI/FS. The EPA will consider all suggestions for remediation from local officials and interested parties.

Comment:

Mayor Benedetti and several residents expressed concern that the slag area and the off-site water tower area are still accessible to children. They asked if the EPA would be restricting access to these areas and could these efforts be expedited.

EPA Response:

The EPA is currently expediting the restriction of access to these areas. Fencing and signs indicating the presence of hazardous substances will be utilized.

Comment:

An individual asked for clarification of the hazards that the slag area presents to residents and thought that capping it would be an effective method of remediation as it would remove human contact from the hazard.

EPA Response:

The health hazard from the slag area includes heavy metals contamination and is one that primarily affects the children that play on the slag. Ingestion of soil from the area is considered the primary pathway of contamination. The EPA must consider both health and environmental impacts when selecting remedial alternatives. Heavy metal contamination in the slag may impact environmentally sensitive areas like the Delaware River.

Comment:

Several individuals indicated that they thought that the tires on-site should be dealt with expeditiously since they represent a fire hazard.

EPA Response:

The EPA is currently exploring options for disposal of the tires to deal with them quickly and safely.

Potentially Responsible Party (PRP) Comment:

In addition to the residents comments at the public meeting, a PRP submitted written comments regarding the types and amount of analytical services performed on the various media that were sampled. The PRP questioned both the quality assurance aspect of the analytical data presented and the cost efficiency of the methods used.

EPA Response:

One of the EPA's primary goals in conducting its FFS was to proceed as expeditiously as possible without sacrificing quality in data collection or inefficiency in costs. The EPA has extensive quality control and quality assurance programs to accomplish those goals.

PRP Comment:

A PRP made several written comments in regards to the remedial alternatives evaluated for transformers/transformer contents, tank contents and baghouse dust.

EPA Response:

Specifically, the PRP suggested alternatives for disposal that are consistent with the preferred remedial alternatives. The EPA will consider all such suggestions during remedial design.

B. Health Related Issues

Comment:

An individual who stated he was a member of the citizens group, People United for a Clean Environment (PUCE), noted what he perceived to be an unusually high incidence of cancer in the Roebling area. He indicated that he believed this was a direct result of the proximity to the Roebling Steel Company site and that the potable groundwater supply in the area was contaminated from the site. He asked if groundwater sampling was being conducted at the site.

ATSDR/EPA Response:

The New Jersey State Department of Health has been contacted, and a request has been made, to investigate cancer rates via their cancer registry to determine if the Roebling area has an unusually high rate of cancer compared to the general population. It should be noted that residents in proximity to the site utilize municipal water which to date has shown no signs of contamination. Ground-water sampling is a component of the ongoing RI/FS at the site.

Comment:

Mayor Benedetti requested that the EPA be involved in developing a blood testing program for children living in the immediate vicinity of the Roebling Park water tower.

EPA Response:

The EPA will forward this request to the Agency for Toxic Substances and Disease Registry (ATSDR).

Comment:

Several individuals inquired about contingency planning for the site: specifically, is a contingency plan currently in place or in development and would a site specific health and safety plan be developed. A local fire department member expressed concern that coordination with the EPA officials had been poor and that the local emergency responders were anxious to be a part of the development of contingency plans for the site.

EPA Response:

Health and safety plans and contingency plans are developed as an element of the Superfund remedial process. Currently, a site specific health and safety plan exists for the on-going RI/FS. In addition, during remedial design, health and safety and contingency plans are developed in conjunction with township officials including health, police, and fire department officials.

C. RI/FS Activities

Comment:

Mayor Benedetti and a resident requested soil sampling for the residential areas adjacent to the site.

EPA Response:

The EPA plans to sample surface soil of residential properties adjacent to the water tower area in the near future. Property owners have been notified and several consent agreements for access to the properties to perform surface soil sampling have been signed.

Comment:

A resident inquired about the results of sampling activities she witnessed in the playground area adjacent to the main gate at the site.

EPA Response:

Analytical results from the sampling conducted during the RI/FS will be presented in the Roebling Steel Company site RI report.

D. Cost/Schedule Issues

Comment:

An individual asked about the costs of the cleanup: specifically, how it was being paid for, if Superfund monies were being used, and how Superfund monies were generated.

EPA response:

Currently, Superfund monies are being utilized to expedite the cleanup of the Roebling Steel Company site. An important element of the Superfund program is cost recovery of expeditures from responsible parties. The EPA will explore all avenues available to recover costs at the site. All Superfund monies spent to date have been generated through a tax on the petrochemical industry.

Comment:

Several individuals asked about the schedule for the planned remedial action for Operable Unit 01 and the overall remediation of the site.

EPA Response:

Although there is currently no precise schedule available, the EPA has expedited the remedial design with the help of the Army Corps of Engineers to complete the planned remedial action for Operable Unit 01 as soon as possible. As more information becomes available through the completion of the ongoing RI/FS, a more precise schedule for remediation of the entire site can be developed.

Comment:

An individual asked if disposal areas had been obtained for those materials being removed from the Roebling Steel Company site and whether the availability of such disposal sites could cause delays in the planned remedial activities.

EPA Response:

Remedial contractors provide proposed disposal areas in their bid packages which must be approved by the EPA. This will occur during the upcoming remedial design for the site. At this time, the EPA does not foresee delays caused by the availability of disposal sites for the known contaminated media.

E. Future Activities

Comment:

An individual asked if future remedial actions conducted at the site would result in the solicitation of bids for contractors.

EPA Response:

Bids will be solicited by the U.S. Army Corps of Engineers for construction type work during future remedial actions.

Comment:

Several individuals expressed interest in the status of ownership and control of the site.

EPA Response:

Title to the property is held by the John A. Roebling Steel Company (JARSCO), currently in bankruptcy. JARSCO was formed through financial assistance provided by the U.S. Economic Development Administration. When JARSCO defaulted on a loan guaranteed by the EDA and ceased operation at the site, EDA became a creditor in possession for the purposes of liquidation. However, the EDA has not foreclosed on its loan and therefore JARSCO remains the site owner. In addition, the State of New Jersey has declared JARSCO void by proclamation. The EPA maintains primary control of the site for the purposes of responding to removal and remedial actions.

Comment:

Several individuals asked about the fate of the site after remediation including the fate of the buildings on the site.

EPA Response:

It has not been determined at this time whether any of the buildings on-site would need to be demolished as part of the remedial actions. Currently, the EPA has access to the site through the U.S. Economic Development Administration. The EPA does not acquire ownership of Superfund sites during their remediation and therefore would be unable to determine the ultimate fate of the property.

IV. REMAINING CONCERNS

Issues relative to the EPA's close coordination of their remedial efforts with township officials and residents will continue to be critical areas of concern. Such issues would include the EPA's communication of site related information as it pertains to restricted access to site areas, health and safety and contingency planning, and the availability of information regarding subcontracting of construction work during the remedial action implementation.

APPENDIX A

Superfund Update

Roebling Steel Company Site

EPA
Region 2

Roebling, New Jersey

January 1990

PROPOSED PLAN

ROEBLING STEEL COMPANY SITE
Florence Township, New Jersey

ANNOUNCEMENT OF THE PROPOSED PLAN

This Proposed Plan identifies the preferred options for addressing several imminently hazardous areas at the Roebling Steel Company site. In addition, the Plan includes summaries of other alternatives analyzed for this interim remedial action, designated as Operable Unit One (OU-01). This document is issued by the U.S. Environmental Protection Agency (EPA), the lead agency for site activities, and the New Jersey Department of Environmental Protection (NJDEP), the support agency for this project. The EPA, in consultation with the NJDEP, will select a interim remedy for the site only after the public comment period has ended and the information submitted during this time has been reviewed and considered.

COMMUNITY ROLE IN THE SELECTION PROCESS

The EPA is issuing this Proposed Plan as part of its public participation responsibilities under section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This document summarizes information that can be found in greater detail in the Focused Feasibility Study report (FFS) and other documents contained in the administrative record for this site. The EPA and the State encourage the public to review these other documents to gain a more comprehensive understanding of the site and Superfund activities that have been conducted there.

Written comments can be sent to:

Tamara Rossi
Remedial Project Manager
U.S. Environmental Protection Agency
Room 711
26 Federal Plaza
New York, NY 10278

The administrative record, which contains the information upon which the selection of the response action will be based, is available at:

Florence Township Public Library
1350 Hornberger Avenue
Roebling, New Jersey 08554
(609) 499-0143

Florence Township Municipal Building
711 Broad Street
Florence, New Jersey 08518
(609) 499-2525

SITE DESCRIPTION

The Roebling Steel site is a 200-acre, inactive facility that was used from since 1906 until 1982 primarily for production of steel products. In recent years, parts of the site have been used for various industrial operations. There are approximately 55 buildings on-site connected by a series of paved and unpaved access roads occupying most of the site. Slag residue from steel production was used to fill in a large portion bordering the Delaware River shoreline.

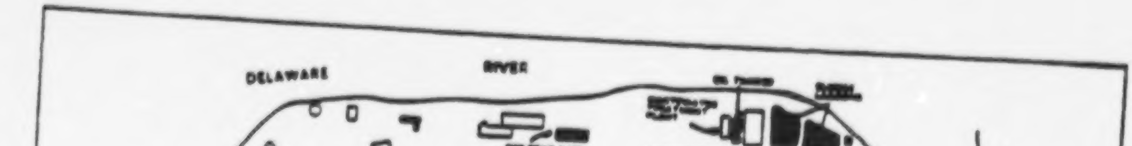
Numerous potential sources of contamination exist at the site, including 757 drums containing liquids and solids, 106 abandoned tanks, 183 transformers containing PCB-contaminated oils, 52 railroad cars containing fly-ash, dry sludge and debris, pits and sumps, process buildings containing chemical treatment baths, two sludge lagoons, friable asbestos insulation falling from pipes, a baghouse dust pile, chemical piles, compressed gas cylinders, tire piles, and a landfill.

The site is located in the village of Roebling in Florence Township, Burlington County, New Jersey (Figure 1). It is bordered by Second Avenue on the west and Hornberger Avenue on the south. The Roebling Park, a public playground adjacent to the site, consists of a large open area which includes swings, basketball and tennis courts, and a large elevated water tower. The Delaware River forms the northern boundary of the site, and Crafts Creek forms its eastern boundary. U.S. Route 130 is south of the site.

Residential lands are located to the west and southwest of the site at a zoning density of approximately eight dwellings per acre. The closest residences to the site are approximately 100 feet away from the property boundaries, 250 feet from the slag pile and 1,200 feet from the sludge lagoons and wastewater treatment plant tanks.

FIGURE 1

SITE MAP



SCOPE OF THE OPERABLE UNIT

Because of the size and complexity of the Roebling Steel site the EPA is addressing its remediation in phases, or operable units.

- Removal Actions included two cleanups, the first was performed in 1985 by the NJDEP, and the second was performed in 1987 - 1988 by the EPA. The objective of these actions was to stabilize the most hazardous areas of the site. Explosive chemicals were removed from the site in the 1985 removal. In the second removal action, lab pack containers and drums of corrosive and toxic materials, acid tanks and compressed gas cylinders were removed.

- Operable Unit 01 is the subject of this Proposed Plan. It will address those on-site areas that pose a sufficiently imminent hazard to require expedited remediation but were too complex or required too expensive a response to address during the removal actions. These areas include the remaining drums and exterior tanks, transformers, a baghouse dust pile, chemical piles, tires, and the remaining gas cylinders. It will also address the soil under the water tower in the Roebling Park adjacent the Roebling Steel site.

- Operable Unit 02 will determine the nature and extent of contamination over the entire site. A remedial investigation and feasibility study (RI/FS) is currently being performed that will address the remaining areas of contamination at the site. The RI/FS will examine soils, surface water, groundwater, sediments, air, lagoons and other remaining contamination sources.

SUMMARY OF SITE RISKS

The FFS developed remedial objectives for the areas of concern in the interim action, based on the nature and extent of the contaminants and the imminent hazard posed by each area. Vandalism and trespassing are two major concerns at the site and seriously aggravate the chemical and physical hazards present. In addition, trespassing and vandalism at the site in the past have required the use of expensive security measures. A brief description of the risks associated with each area and the remedial objectives developed to address those risks follows.

ON-SITE AREAS OF CONCERN:

DRUMS/DRUM CONTENTS AND TANK CONTENTS

Both the drums and the tanks contain a variety of hazardous (toxic, corrosive, and reactive) constituents. There are two major concerns associated with the drums and the tanks. Trespassers may be exposed to hazardous chemicals if they approach or tamper with any of these containers. Also, because the drums and the tanks are mostly very deteriorated, they may leak at any time, releasing hazardous substances that present a risk of direct human exposure as well as a release of these materials into the environment.

The drums and tanks are imminent hazards because of the nature of the contents and the condition of the containers themselves. An expedited action is required to isolate the contents of these containers from the environment and any trespassers.

TRANSFORMERS/TRANSFORMER CONTENTS

The transformers contain oil contaminated with high levels of PCBs. Any oil that leaks from the transformers will pose a serious and imminent threat to public health and the environment. As the transformers will eventually have to be removed from the site, addressing them during the interim action is consistent with the overall remedy for the site.

COMPRESSED GAS CYLINDERS

An inventory of the remaining cylinders was created during the FFS, and it was discovered that they are all old fire extinguishers. These cylinders do not contain hazardous constituents and, therefore, do not pose a physical or chemical hazard. In the absence of a hazard, there is no remedial objective for the cylinders and remedial alternatives were not developed for them.

BAGHOUSE DUST AND CHEMICAL PILES

The baghouse dust and chemical piles were sampled in the FFS and were found to contain high levels of several heavy metals, such as lead, chromium and cadmium, many of which are toxic and/or carcinogenic. Baghouse dust from steel manufacturing electric arc furnaces is a listed RCRA waste. This pile was exposed to the weather and was temporarily stabilized during the removal action with plastic covers. These covers may become degraded by the weather and cease to provide effective containment. The hazardous constituents measured in the baghouse dust will leach into the environment and may also pose a health risk to trespassers through direct exposure. Chemical piles are located in buildings at the site. Trespassers may be exposed to this contaminant.

The baghouse dust and chemical piles currently pose hazards to public health and the environment. The remedial objective for these areas of the site is to isolate the hazardous constituents from the public and the environment.

TIRE PILES

Approximately ten thousand tires are located both inside and outside of buildings in piles primarily around the south eastern portion of the site. On several occasions fires have occurred in the tire piles. The tire fires constitute a chemical threat to public health and the environment as well as a physical hazard. Burning tires release hazardous constituents into the air and produce a toxic tar-like sludge.

Based on the history of tire fires at the site and the probability that these fires have been started by vandals, the tires should be removed from any areas that may be available to public access.

OFF-SITE AREA OF CONCERN:

WATER TOWER SOIL

The surface soil under the water tower in the Roebling Park is contaminated. The analysis of samples collected under the water tower indicates unacceptably high concentrations of lead in an area adjacent to playground that is frequented by young children. Low levels of PCBs have also been detected. The incidental ingestion of soil from this area presents a public health risk to children, particularly of preschool age. Remediation of surficial soils in this part of the park would reduce the risk for a segment of the most sensitive subpopulation, young children. The lead levels in the soil samples outside the water tower area of the park are typical of the lead levels found in a residential or urban area.

SUMMARY OF ALTERNATIVES

The FFS presents remedial alternatives to address six areas of concern at the site: drums, transformers, tanks, baghouse dust pile, chemical piles, and tires. In addition, remedial alternatives were considered for the off-site water tower soil. A wide range of technologies was considered to address the remedial objectives for each of these areas. The technologies that were not eliminated from consideration during screening were assembled into remedial alternatives. In addition to the alternatives described below, a No Action alternative was considered for the water tower soil and on-site areas of concern.

NO ACTION

The No Action alternative provides a baseline for comparing the alternatives that provide a greater degree of response. Under this alternative, no effort would be made to change or maintain the current status of the drums, transformers, tanks, baghouse dust pile, chemical piles and tires. The container vessels (drums, transformers, tanks) would continue to degrade and potentially leak hazardous substances. The temporarily contained and uncontained contaminated materials (baghouse dust and chemical piles, respectively) would continue to migrate. The tires would remain in place and another fire might occur. Under the No Action alternative, no remedial action would be implemented to eliminate the health risk posed by the contaminated soil under the water tower. No remedial technology would be utilized to reduce the toxicity, mobility or volume of the waste. The No Action alternative is retained as a baseline alternative for each contamination source.

ON-SITE AREAS OF CONCERN:

DRUMS/DRUM CONTENTS (DR)

DR-1 Drum Bulking and Off-site Disposal

Estimated Cost: $ 869,000
Implementation Period: within one year

Under this alternative, action would be taken to remove the drums from the site and to properly dispose of the wastes. First, any deteriorated drums would be overpacked. All drums containing wastes would then be sampled. The samples would be tested to determine compatibility of the wastes. Drums containing compatible waste would be staged (grouped) until final waste bulking. Prior to final disposal, the contents of each staged drum would be consolidated (bulked) into a bulking chamber with the contents of other drums of compatible material. One waste sample would be taken from each bulked category; these samples would undergo rigorous analytical testing to determine the appropriate method of final disposal for each category. The bulked waste would be loaded into a tanker truck and hauled off-site to a RCRA approved treatment facility or to a hazardous waste disposal facility. After bulking, empty drums would be crushed for disposal.

DR-2 Overpacking of Drums and Off-site Disposal

Estimated Cost: $ 1,476,000
Implementation Period: within one year

This alternative involves overpacking each drum of waste at the site in an approved container to prevent further leakage or spillage of the drum contents. This alternative would include sampling of each drum along with a complete disposal parameter analysis. Once the drums are overpacked, they would be hauled off-site to a RCRA approved treatment facility or to a hazardous waste disposal facility.

TRANSFORMERS/TRANSFORMER CONTENTS (TR)

TR-1 Bulking and Incineration of PCB-Contaminated Liquids/Dismantling and Disposal of Transformer

Estimated Cost: $ 1,840,000
Implementation Period: within one year

This alternative involves the consolidation of the contents of individual transformers into a tanker to be shipped off-site for incineration. The contents would be tested before consolidation to ensure that the materials are treated appropriately based on the concentration of PCBs present. The transformer carcasses would be decontaminated before off-site disposal.

TR-2 Shipment of Transformers En Masse

Estimated Cost: $ 1,540,000
Implementation Period: within one year

This alternative involves shipping the transformers and their contents to a facility that would properly dispose of the PCB-contaminated oil, dismantle and clean the transformers and dispose of the carcasses.

TANK CONTENTS (TK)

TK-1 Bulking of Contents and Off-site Disposal

Estimated Cost: $ 1,480,000
Implementation Period: within one year

This alternative involves the removal of contaminated material from exterior tanks and shipment to an off-site RCRA approved treatment facility or to a hazardous waste disposal facility. The contents from these tanks would be tested, bulked and consolidated into similar waste streams for disposal. The tanks themselves would be decontaminated during the long-term RI/FS, when tanks are removed from the site. The remaining tanks and tank contents located inside buildings will also be addressed in the RI/FS.

BAGHOUSE DUST (BH)

BH-1 Off-site Treatment and Disposal

Estimated Cost: $ 405,000
Implementation Period: within one year

This alternative involves the removal of approximately 530 cubic yards of baghouse dust to an off-site RCRA approved treatment and disposal facility. The dust was consolidated into one pile during the previous removal action, covered with visqueen and tarps, and secured by large concrete barriers. Sand bags were used to reduce migration from the base of the pile by securing the tarp onto the pile. The waste would be loaded into approximately 30 roll-off containers and transported to an off-site RCRA approved treatment and disposal facility. Off-site disposal would be used in conjunction with a pre-disposal treatment measure, such as solidification or stabilization, that would be capable of physically or chemically binding inorganic contaminants and significantly reducing their potential to leach.

CHEMICAL PILES (CP)

CP-1 Off-site Treatment and Disposal

Estimated Cost: $ 21,000
Implementation Period: within one year

This alternative involves the off-site treatment and disposal of approximately twenty-four tons of material from seventy-nine chemical piles scattered throughout the site. Material from these piles would be consolidated and transported to an off-site RCRA approved treatment and disposal facility. As with the baghouse dust, off-site disposal would be used in conjunction with a pre-disposal treatment measure, such as solidification or stabilization.

TIRE PILES (TP)

TP-1 Off-site Disposal

Estimated Cost: $ 12,000
Implementation Period: within one year

This alternative involves the removal and off-site disposal of approximately 10,000 tires and burnt rubber. At present, most of these tires are stored in and around Buildings 18 and 70.

OFF-SITE AREA OF CONCERN:

WATER TOWER SOIL (WT)

WT-3: Excavation/Treatment and Disposal

Estimated Cost: $ 64,800
Implementation Period: within one year

Under this alternative, contaminated soils under the water tower will be excavated to a depth of 6 inches using ordinary construction equipment (backhoes and front-end loaders). The volume of contaminated soil is approximately 120 cubic yards. The excavated area would be backfilled with uncontaminated soil and revegetated. The contaminated soils would be loaded into rolloffs, transported to the Roebling Steel site for temporary storage if necessary, and then sent to a RCRA approved treatment and disposal facility. Disposal of the contaminated soil would be used in conjunction with a pre-disposal treatment measure, such as solidification or stabilization, that would be capable of physically or chemically binding inorganic contaminants and significantly reducing their potential to leach. It should be noted that the focused feasibility study refers to this alternative as PS-3.

EVALUATION OF ALTERNATIVES

EPA uses nine criteria to evaluate the alternatives and to select a preferred alternative for each source. This section discusses and compares the performance of the remedial alternatives under consideration for each source against these criteria. The nine criteria are described in the following glossary. The criterion for long-term effectiveness and permanence was adapted for the interim action so that alternatives that are not permanent remedies by themselves will be considered if they are consistent with the final remedy for the site.

ANALYSIS

Each area of concern is considered separately below. For each area, the first seven evaluation criteria are considered in the order they are listed above and the merits of each alternative relative to that criterion are evaluated.

NO ACTION

The No Action alternative for each source area would not provide protection of public health or the environment. Contaminants would remain in their present state with potential for leakage and migration. There is a potential risk through direct exposure to the contaminants. The No Action alternative fails to meet the remedial objectives, and therefore, it is eliminated from further consideration in the detailed analysis.

ON-SITE AREAS OF CONCERN:

DRUMS/DRUM CONTENTS

Removal of the wastes and treatment at an off-site facility in both of the remaining alternatives (DR-1 and DR-2) would prevent a release of

Overall Protection of Human Health and Environment addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

Compliance with ARARs addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of other Federal and State environmental statutes and/or provide grounds for invoking a waiver.

Long-term Effectiveness and Permanence refers to the magnitude of residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time once remedial objectives have been met.

Reduction of Toxicity, Mobility, or Volume Through Treatment is the anticipated performance of the disposal or treatment technologies that may be employed in a remedy.

Short-term Effectiveness refers to the speed with which the remedy achieves protection, as well as the remedy's potential to create adverse impacts on human health and the environment that may result during the construction and implementation period.

Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the chosen solution.

Cost refers to estimates used to compare costs among various alternatives.

State Acceptance indicates whether, based on its review of the FFS and Proposed Plan, the NJDEP concurs with, opposes, or has no comment on the preferred alternative.

Community Acceptance will be assessed in the Record of Decision following a review of the public comments received on the FFS report and the Proposed Plan.

hazardous substances to the environment, and would fully protect human health and the environment. Both alternatives were used during the past removal action.

There are no chemical-related ARARs that need to be met for implementing these alternatives. Activities related to the handling of wastes and the transportation to an off-site facility would be accomplished in accordance with the Department of Transportation (DOT) regulations and hazardous waste management requirements. The waste would be removed to a RCRA-permitted facility.

Both alternatives DR-1 and DR-2 effectively remove the waste from the site, eliminating the potential threat to human health. As the hazardous substances would be removed and treated rather than just contained or managed, either alternative would provide a permanent remedy.

Treatment would eliminate the toxicity and/or volume of the waste. In addition, the removal of drums from the site will eliminate the physical hazards associated with drums that might injure trespassers or rupture and leak their contents.

The short-term effectiveness of both alternatives is high, as both can be quickly implemented and both will immediately address the hazards posed by the drums. However, the overpacking alternative requires less time to implement because the majority of the activity would be performed off-site. Analysis for the compatibility testing for the bulking operation can be performed in an on-site mobile laboratory.

Adequate worker protection during implementation activities can be ensured by wearing the proper level of protection, following the proper handling protocols, and good safety practices. There is an increased risk associated with the bulking operation compared to the overpacking of drums because there is more on-site maneuvering of hazardous wastes.

On-site bulking and off-site treatment ($ 869,000) is less expensive than individually overpacking the drums and shipping them to an off-site facility for treatment ($ 1,476,000). The cost estimates for both alternatives are worst case scenarios. These estimates are based on using incineration to treat all of the waste. However, sampling may indicate that some other treatment method may be appropriate.

TRANSFORMERS/TRANSFORMER CONTENTS

Both remedial alternatives, bulking and incineration of transformer oils, and dismantling and disposal of the transformer carcasses (TR-1); and shipment of the transformers en masse (TR-2), are protective and constitute a final remedy. The threat of PCB-contaminated oil leaking from the transformers would be addressed. Both alternatives utilize incineration to permanently destroy the contaminants.

There are no chemical-specific ARARs that need to be met before implementation. However, in implementing the action, all oil containing PCBs, must be treated in accordance with the Toxic Substances Control Act (TSCA).

Both alternatives effectively remove the oil from the site, eliminating the potential threat to human health. Incineration of PCB contaminated oil provides a permanent remedy. Both alternatives are consistent with the long-term remedy.

Incineration of the contaminated oil will totally destroy toxicity and mobility of the waste, and will reduce the volume of the oil. In both cases, the transformer would be removed from the site.

Short-term effectiveness is high for both alternatives, as the contaminated oil would be removed from the site and treated. Both alternatives achieve their maximum effectiveness quickly, although alternative TR-2 requires less time to implement than TR-1. Short-term hazards involved in handling and transporting the oils include risks to workers as well as a potential threat to trespassers that might come in direct contact with accidentally spilled waste. Any short-term impacts during implementation can be mitigated by following proper protocols and requirements.

The multi-staged process of sampling and bulking the PCB-contaminated oil, transporting it to an off-site incinerator, and dismantling and disposing of the transformer carcasses increases the risk during implementation activities of alternative TR-1.

Shipment of transformers en masse ($ 1,540,000) is cheaper then bulking and dismantling all the transformers ($ 1,840,000), and can be performed in an expedited fashion.

TANK CONTENTS

Bulking of tank contents and off-site disposal (TK-1) is very protective of human health and the environment because it eliminates the future threat of leakage by further deterioration and tampering of the tank. There are no chemical related ARARs that need to be met before implementation. However, shipment and disposal must be treated in accordance with RCRA, if the contents are RCRA wastes.

Bulking of tank contents and off-site disposal is the only alternative that passes the threshold evaluation. Disposal of the waste to an off-site RCRA approved treatment and disposal facility may reduce its toxicity, mobility, and volume, and is a permanent treatment technology.

The short-term risks associated with bulking and transporting the waste to a disposal facility are minimal because of the small volume of waste found in the tanks being addressed. The waste stream characterization should not be complex, which would limit the number of bulking chambers and tanker trucks. In addition, the approach can be quickly implemented because of the small number of tanks.

The estimated cost of this alternative is $1,480,000.

BAGHOUSE DUST

Off-site treatment and disposal of the baghouse dust is protective of human health and the environment because it eliminates the risk of direct exposure, which may occur through tampering, or weathering of the tarp. Landfilling this material involves the placement of a restricted RCRA listed waste (K061–emission control dust/sludge from the primary production of steel in electric furnaces) and RCRA Land Disposal Restrictions must be considered before the waste is land disposed. Treatment standards, either concentration levels or a specified technology, would be determined before the material can be removed to a landfill.

Disposal of the baghouse dust to an off-site RCRA approved treatment and disposal facility is the only alternative that passes the threshold evaluation. This alternative eliminates migration and, depending on the treatment technology, may decrease toxicity. Off-site disposal used in conjunction with a pre-disposal treatment measure would be consistent with the long-term remedy.

The short-term risks associated with this alternative can be minimized by using dust control measures to prevent migration caused by moving vehicles and equipment, and wind erosion during the implementation stage. The waste would be loaded into approximately 30 roll-off containers and transported to the treatment and disposal facility.

The cost of this alternative is estimated at $405,000.

CHEMICAL PILES

Off-site treatment and disposal of the chemical piles is protective of human health and the environment because it eliminates the risk of exposure by migration and direct contact at the site. This alternative involves the removal of waste to an off-site RCRA approved treatment and disposal facility and must comply with the appropriate land disposal restrictions.

Off-site treatment and disposal of the chemical piles is the only alternative that passes the threshold evaluation. This alternative raises the same issues regarding dust control measures and land disposal restrictions as were considered for the baghouse dust.

The cost of this alternative is estimate at $21,000.

TIRE PILES

Off-site disposal of approximately 10,000 tires is a final remedy to the threat of future tire fires and is protective of human health and the environment. There are no chemical-related ARARs that need to be met.

Tire fires are particularly hazardous because of the petrochemical composition of the tires. When ignited, the tires produce a smoke plume that contains many gaseous byproducts and particulates, including hazardous organic compounds. Burning tires produce oils that can make the fire uncontrollable. There is also a possibility of the fire spreading to an area where flammable or explosive chemicals are located. Removing the tires would insure the protection of human health and the environment from this hazard.

Off-site disposal of tires is the only alternative that passes the threshold evaluation. This alternative is a permanent remedy and is effective in eliminating the future threat of tire fires and the production and migration of hazardous by-products.

The disposal of tires has no short-term effects and is readily implementable. The cost of off-site disposal of the tires is $12,000.

OFF-SITE AREA OF CONCERN:

WATER TOWER SOIL

Under this alternative, action would be taken to excavate the contaminated soil and transport it to a RCRA approved treatment and disposal facility. The contaminated surface soil is limited to the area directly under the water tower.

Treatment and disposal of contaminated material to an off-site facility would fully protect human health and the environment. RCRA Land Disposal Restrictions must be considered before the waste is land disposed.

Treatment standards, either concentration levels or a specified technology, would be determined before the material is removed to a landfill. Activities related to the handling of wastes and transportation to an off-site facility would be accomplished in accordance with U.S. Department of Transportation (DOT) regulations and hazardous waste management requirements. Any temporary storage of rolloffs or drums containing contaminated material on the Roebling Steel site would be conducted in accordance with the RCRA standards regarding storage of hazardous waste for off-site disposal. The contaminated material will ultimately be removed to a RCRA-permitted facility.

This alternative will effectively remove the waste from the area, eliminating the potential threat to human health. Since the hazardous material will be removed and properly disposed, this alternative would provide a permanent remedy. This alternative would eliminate future migration of the contaminated soil.

The short-term effectiveness of this alternative is high, as it can be quickly implemented and would immediately address the hazards posed by the contaminated soils. Worker hazards would be minimal due the nature of the removal. Adequate worker protection during implementation activities can be ensured by following appropriate safety practices.

Excavation and off-site treatment and disposal of the contaminated soil under the water tower is the only alternative that passes the threshold evaluation. The cost of this alternative is approximately $64,800.

SUMMARY OF THE PREFERRED ALTERNATIVES

The EPA and the NJDEP have evaluated the remedial alternatives in accordance with Section 121 of CERCLA and §300.430 of the NCP, and developed preferred remedies for interim action on each of the areas of concern at the site, based on the findings of the FFS. The public is encouraged to review all of the findings of the FFS and offer comments on that document and this Proposed Plan. The EPA and the NJDEP will not select a final remedial alternative until after all comments received during the public comment period have been considered. The final selected remedy will be presented in the Record of Decision (ROD).

The evaluation of the alternatives in the previous section discussed each of the alternatives relative to criteria established under the Superfund law and regulations. The intent of the interim action is to stabilize those areas of the site that require an expedited response, and to implement remedial actions that will, to the greatest extent practicable, be consistent with the final remedy at the site.

In summary, the preferred remedies for each of the areas of concern are presented below. The preferred remedy would stabilize those areas of the site that were determined to require expedited attention and would provide at least short-term protection of public health and the environment. The interim action will be implemented in accordance with all Federal, State, and local requirements.

SUMMARY OF PREFERRED ALTERNATIVES

DRUMS/DRUM CONTENTS: Overpacking and off-site disposal (DR-2), at a cost of approximately $1,476,000, is preferred over bulking of drum contents and off-site disposal (DR-1), which costs approximately $869,000, because there are fewer short-term risks and it requires less time to implement.

TRANSFORMERS/TRANSFORMER CONTENTS: Shipment en masse of transformers (TR-2), at a cost of approximately $1,540,000, is preferred over bulking of transformer oil and off-site incineration (TR-1), which costs approximately $1,840,000, because there are fewer short-term risks, it requires less time to implement, and the cost of shipment en masse is lower than bulking the transformer oil.

TANK CONTENTS: Bulking and off-site disposal (TK-1) is the only alternative that passed the first two criteria, which are threshold criteria that must be satisfied. The cost is approximately $1,480,000.

BAGHOUSE DUST: Off-site treatment and disposal of baghouse dust (BH-1) is the only alternative that passed the threshold criteria. The cost is approximately $405,000.

CHEMICAL PILES: Off-site treatment and disposal of chemical piles (CP-1) is the only alternative that passed the threshold criteria. The cost is approximately $21,000.

TIRE PILES: Off-site disposal of the tires (TP-1) is the only alternative that passed the threshold criteria. The cost is approximately $12,000.

WATER TOWER SOIL: Excavation and off-site treatment and disposal of contaminated soils (PS-3) is the only alternative that passed the threshold criteria. The cost is approximately $64,800.

COST SUMMARY FOR THE PREFERRED ALTERNATIVES

ON-SITE AREAS	
DRUMS (DR-2)	($)1,476,000
TRANSFORMERS (TR-2)	1,540,000
TANKS (TK-1)	1,480,000
BAGHOUSE DUST (BH-1)	405,000
CHEMICAL PILES (CP-1)	21,000
TIRE PILES (TP-1)	12,000
OFF-SITE AREA	
WATER TOWER SOIL(WT-3)	64,800
TOTAL	4,998,800

COMMUNITY INVOLVEMENT

EPA solicits input from the community on the cleanup methods proposed at each Superfund site. EPA has set a public comment period from January 8, 1990, through February 6, 1990, to encourage public participation in the selection process. The comment period includes a public meeting at which EPA, with the NJDEP, will present the FFS report and Proposed Plan, answer questions and accept both oral and written comments.

A public meeting is scheduled for 7:00 p.m., Thursday, January 18, 1990 and will be held at the Roebling Volunteer Fire Company #3, located on 7th and Main Street, Roebling, New Jersey.

Comments on the Proposed Plan or the FFS report will be welcomed through February 6, 1990, and will be summarized and responded to in the Responsive Summary section of the Record of Decision (ROD) for the Roebling Steel site. The ROD is the document that presents EPA's final selection for cleanup.

Written comments can be sent to:

Tamara Rossi
Remedial Project Manager
U.S. Environmental Protection Agency
Room 711
26 Federal Plaza
New York, NY 10278

The administrative record, which contains the information upon which the selection of the response action will be based, is available at:

Florence Township Public Library
1350 Hornberger Avenue
Roebling, New Jersey 08554
(609) 499-0143

Florence Township Municipal Building
711 Broad Street
Florence, New Jersey 08518
(609) 499-2525

APPENDIX B

UNITED STATES PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
ROEBLING STEEL COMPANY SITE

JANUARY 18, 1990
ATTENDEES

(Please Print)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING	MAILING LIST
[illegible] Brinkley	33 4th Ave	Roebling	08554		Self	X
John Brinkley	53 Fourth Ave	Roebling	08554	[illegible]	Self	x
WALTER TRUMHAUER	WOODLAWN RD	MT HOLLY	08060	265-5513	BURL CO H.D.	x
Helen I. Grice	55 Railroad Ave	Roebling NJ	08554	~~[illegible]~~ 499-3539	Self	+
Ernestine Davis	57 Railroad Ave	Roebling NJ	08554	499-3243	Self	+
Roulla Varga	20 4th Ave	Roebling NJ	08554	499 1160	Self	X
Paul Varga	20-4th Ave	Roebling NJ	08554	499-1160	Self	X
Tony Beach	105 7th Ave	Roebling NJ	08554	4992741	407	x
Jim [illegible]	301 W. 6th St	Florence	08518	499-9143	Fla. fire Depts	X
Ray Garrett	155-11 [illegible]	N.Y.C.	10022	212-922-2660	Hill St. Survey	
Jim Beatty III	41 [illegible] Ave	Roebling	08554	499-1838	TWP. COUNCIL	X

UNITED STATES PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
ROEBLING STEEL COMPANY SITE

JANUARY 18, 1990
ATTENDEES

(Please Print)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING	MAILING LIST
r+Mrs. J. Borota	25 4th Ave	Roebling	08554		Homeowner	✓
ale Schlepper	29 4th Ave	Roebling	08554		Homeowner	✓
Terry Palace	158-18 Riverside Dr.	New York, N.Y.	10032	212-927-2660	Hill Stewart Security	✓
ristopher Mitre	13 5th Ave	Roebling	08554	499-1640	Fire Dept	✓

UNITED STATES PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
ROEBLING STEEL COMPANY SITE

JANUARY 18, 1990
ATTENDEES

(Please Print)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING	MAILING LIST
Tom McCloe	26 6th Ave	Roebling	08554	609 499 2969		✓
Jack Quig	238 E Fifth St	Florence	08518	609-499-0603		✓
James Spadafora	31 Third Ave.	Roebling	08554	609-896-2345		✓
Joseph J. Palser	241 4th ave.	Roebling	08554	499-2189	self	✓

UNITED STATES PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
ROEBLING STEEL COMPANY SITE

JANUARY 18, 1990
ATTENDEES

(Please Print)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING	MAILING LIST
[illegible]	74 E DELAWARE AVE	Florence	08518	499-0078		✓
James Tully	63 2nd Ave	Roebling	08518	499-1536	Self	✓
Christine Ilse Swiderski	15 2nd Ave	Roebling	08554	499-1844	Self	
Ted Lewandowski	22 Riverside Ave	Roebling	08554	499-8542	Self	✓
[illegible] Gadbois	3 [illegible]	Roebling	08554		Self	✓
JOSEPHINE NOLAN	1 RAILROAD AVE.	ROEBLING	08554	499-2410	Self	✓
A. CLARKE	Becker Farm Rd.	Roseland		201-535-5300	Hannoch Weisman	✓
Maria Cavernish	159 Station Rd	Roebling	08554	499-2065	Self	—
Louis V. Bruminik	5 9th Av.	Roebling NJ	08554	499-1669	Entire Family!	✓
Frank Richardson	Trenton				NJ DEP	
Maryann Marino	131 3rd Ave	Roebling	08554	499-0486	self	✓
Jean Kendra	20 Riverside	Roebling	08554	499-7662	self	✓
RICHARD KIECISW	126-4th Ave	ROEBLING	08554	499-1330	Florence Twp. Police	✓

UNITED STATES PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
ROEBLING STEEL COMPANY SITE

JANUARY 18, 1990
ATTENDEES

(Please Print)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING	MAILING LIST
Paul Fletcher	45 2nd Ave	Roeb	08554	499-1429		✓
Harry + Harris Robinson	10 9th Ave	Roeb	08554	499-4013		✓
Glen Smith	61 Hornberger	Roe	08554	499-2563		✓
JOHN GROZE	1055 YURCISIN	ROEBLING	08554	499-0985		✓
[illegible] Groze	1055 Yurcisin	Roebling	08554	499-0985		
Flora Smith	116 3rd Ave	Roebling	08554	499-9276		
Frank Smith	116 3rd Ave	Roebling	08554	499-9276	Self	✓
Donna McElreath						
[illegible]	119-2ND AVE	Roebling	08554	499-2379		✓
Marilyn Bontempo	4 2nd Ave	Roebling	08554	499-1838		
C. Gray	[illegible]	Roebling	08554			✓
[illegible]	143-7th Ave.	Roebling NJ	08554	499-1892	Self	✓
[illegible]	160 Coachman Dr	Florence	08518	499-2955	"	✓
Maria Spanos	156 Second Ave.	Roebling	08554	499-4508	self	✓

PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
ROEBLING STEEL COMPANY SITE

JANUARY 18, 1990
ATTENDEES

(Please Print)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING	MAILING LIST
TED MITRE	40 RIVERSIDE AV.	ROEBLING	08554		Self.	—
ois Broshian	25 Railroad Av	Roeb	08554		Self	✓
JOYCE GOLDEN	1720 GREENWOOD AVE., TRENTON, NJ		08609	890-2800	CONGRESSMAN CHRIS SMITH	✓
indy SIDOTTI	141 2ND Ave.	Roebling	08554	499-3052	Self	✓
om Venezia	106 5TH AVE	Roebling	08554	499-5423	SELF	
Hubbard Klem	60 3RD Ave	Roebling	08554	499-9101	Self	✓
Jeffrey Bart	Burl. Co. Times, Rt. 130	Willingboro	08046	871-8000	BCT	✓
J. LOIACONO	1050 Grove St	FLORENCE	08518	4999191	SELF	✓
ill ORDOG, JR	29-5th AVE	ROEBLING	08554	499-9259	ENVIR. COMM.	✓
ANK TODASH	#6-7TH. AVE	ROEBLING	08554	499-9135	SELF	✓
Jim Cafritti	680 Sixth St	Roebling	08554	499-2546	Self	✓
LLIAMEBOTT	64 RIVERBANK DRIVE	ROEBLING	08554	499-4071	SEIF	✓
Carol [illegible]	[illegible]	Roebling	08554	499-1995	self	✓
[illegible]	64 Main St	Roebling	08554	499-1879	Self	✓

UNITED STATES PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
ROEBLING STEEL COMPANY SITE

JANUARY 18, 1990
ATTENDEES

(Please Print)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING	MAILING LIST
[illegible] Geary	228 E. 36th St.	Florence NJ	08518	609-499-[illegible]	ME Krutnogo	yes
[illegible]	155 Second Ave	Roebling, NJ	08554	609-499-4548		yes
Mike Burky	104 3rd Ave	Roebling NJ	08554	499-2821		Yes
Ken Taranto	147 2nd Ave	Roebling NJ	08554			
Bill Roth	1700 Broadway #1700	Denver CO	80290	861-8013		yes
[illegible]	225 [illegible]	[illegible]	80004	303-561-6536		yes
[illegible]	12-7th Ave.	Roebling NJ	08554	499-2679		
John Hoffmeyer	114 5th Ave	Roebling	08554	499 3038	Roebling	yes
George [illegible]	1071 [illegible] Co. RD 1 Box 2		08505	N.J. 499-1255		YES
Brian Richardson	6th AAV 19 Sixth	Roebling	〃	499-3056	STA. 403	Yes
Scott B. Carlton	926 Poplar Ave.	Roebling	0850	499-2813	STA. 402	yes
Richard Bauer	12 6th Ave	Roebling	08554	499 2410	SELF	yes
[illegible]	495 Delaware	Roebling	08554	499 [illegible]	STA 402	yes
CHarles Bauer	2025 Bustleton Rd	[illegible]	08016	499-0939		Yes

APPENDIX C

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY INVITES PUBLIC COMMENT ON THE PROPOSED CLEANUP ALTERNATIVES FOR THE ROEBLING STEEL COMPANY SITE INTERIM ACTION ROEBLING, NEW JERSEY

The U.S. Environmental Protection Agency (EPA) recently completed a Focused Feasibility Study (FFS) that evaluated options for addressing several imminently hazardous areas at the Roebling Steel Company Site. As a part of its public participation responsibilities under section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EPA and the New Jersey Department of Environmental Protection (NJDEP) are issuing a Proposed Plan available for public comment summarizing the alternatives for remediation that EPA considered during its Focused Feasibility Study.

EPA, the lead agency, and NJDEP, the support agency, will be accepting public comments on the Proposed Plan from January 8, 1990 to February 6, 1990. In addition, EPA will hold an informational public meeting at 7:00 p.m. on January 18, 1990 at the Roebling Volunteer Fire Company #3, located on 7th and Main Street, Roebling, New Jersey, to present both the findings of the Focused Feasibility Study and the preferred remedial alternatives.

EPA and NJDEP evaluated the following options for the Interim Action at the site. The Interim Action will continue the site stabilization effort initiated under the previous removal action.

DRUMS	**DR-1**	**Drums Bulking and Off-site Disposal**
	DR-2	**Overpacking of Drums and Off-site Disposal**
TRANSFORMERS	**TR-1**	**Bulking and Incineration of PCB-Contaminated Liquids/Dismantling and Disposal of Transformer**
	TR-2	**Shipment of Transformers En Masse**
TANKS	**TK-1**	**Bulking of Tank Contents and Off-site Disposal**
BAGHOUSE DUST	**BH-1**	**Off-siteTreatment and Disposal**
CHEMICAL PILES	**CP-1**	**Off-site Treatment and Disposal**
TIRES	**TP-1**	**Off-site Disposal**
WATER TOWER SOIL	**WT-3**	**Excavation of Soil under the Water Tower in the Roebling Park/Off-site Treatment and Disposal**

EPA's preferred remedial alternatives are DR-2, TR-2, TK-1, BH-1, CP-1, TP-1 and WT-3. Detailed information on these alternatives is available for review in the Proposed Plan, Focused Feasibility Study, and other site related documents located at the following information repositories:

Florence Township Municipal Building
711 Broad Street
Florence, New Jersey 08518

Florence Township Public Library
1350 Hornberger Avenue
Roebling, New Jersey 08554

Written comments (postmarked on or before February 6, 1990) on the proposed alternatives should be sent to:

Tamara Rossi
Remedial Project Manager
U.S. Environmental Protection Agency
Room 711
26 Federal Plaza
New York, New York 10278

APPENDIX D

Superfund Update

Roebling Steel Company Site

EPA
Region 2

Roebling, New Jersey

January 1990

EPA INVITES PUBLIC COMMENT ON INTERIM ACTION

The U.S. Environmental Protection Agency (EPA) recently completed a Focused Feasibility Study (FFS) that evaluated options for addressing several imminently hazardous areas at the Roebling Steel Company Site. So that the public can effectively participate in the remedy selection process, EPA, the lead agency, and the New Jersey Department of Environmental Protection (NJDEP), the support agency, are issuing a Proposed Plan available for public comment which summarizes the alternatives for remediation that EPA considered during its Focused Feasibility Study.

Because of the size and complexity of the Roebling Steel Company Site, EPA is addressing the site remediation in phases, or operable units. The Proposed Plan addresses an Interim Action for those areas that pose a sufficiently imminent hazard to require expedited remediation. EPA has designated these areas as Operable Unit 01. The Interim Action will address areas that include the remaining drums, transformers, tanks, a baghouse dust pile, chemical piles, and tires. It will also address the soil under the water tower in the Roebling Park, an off-site area adjacent to the Roebling Steel Company Site.

PUBLIC MEETING AND PUBLIC COMMENT INFORMATION

EPA and NJDEP will be accepting public comments on the Proposed Plan and other remedial alternatives evaluated during the FFS from January 8, 1990 to February 6, 1990. In addition, EPA will hold a public meeting at 7:00 p.m. on January 18, 1990 in the Roebling Volunteer Fire Company #3 Building on 7th and Main Street in Roebling, New Jersey to present both the findings of the Focused Feasibility Study and the preferred remedial alternatives. Written comments (postmarked on or before February 6, 1990) on the proposed alternatives should be sent to:

Tamara Rossi
Remedial Project Manager
Room 711
U.S. Environmental Protection Agency
26 Federal Plaza
New York, New York 10278

REMEDIAL ALTERNATIVES EVALUATED

DRUMS	
DR-1	**Drum Bulking and Off-site Disposal**
DR-2	**Overpacking of Drums and Off-site Disposal**
TRANSFORMERS	
TR-1	**Bulking and Incineration of PCB-Contaminated Liquids/Dismantling and Disposal of Transformer**
TR-2	**Shipment of Transformers En Masse**
TANKS	
TK-1	**Bulking of Tank Contents and Off-site Disposal**
BAGHOUSE DUST	
BH-1	**Off-site Treatment and Disposal**
CHEMICAL PILES	
CP-1	**Off-site Treatment and Disposal**
TIRES	
TP-1	**Off-site Disposal**
WATER TOWER SOIL	
WT-3	**Excavation/Off-site Treatment and Disposal**

EPA's preferred remedial alternatives are DR-2, TR-2, TK-1, BH-1, CP-1, TP-1 and WT-3.

Detailed information on these alternatives is available for review at the following information repositories:

Florence Township Municipal Building
711 Broad Street
Florence Township, New Jersey 08518

Florence Township Public Library
1350 Hornberger Avenue
Roebling, New Jersey 08554